



**THE TAVISTOCK FOUNDRY, IRONWORKS,  
AND HAMMER MILLS,**  
ESTABLISHED MORE THAN HALF A CENTURY,  
have been purchased by  
**NICHOLLS, MATTHEWS, AND CO.,**  
Who are in a position to MANUFACTURE ALL KINDS of ENGINEERING  
and FOUNDRY WORK, SHOVELS, and MINING TOOLS of every  
description; and have had a large experience in preparing  
MACHINERY FOR FOREIGN MINES,  
As well as selecting mechanics to erect the same.

N. M., and Co. have always a STOCK of SECOND HAND MATERIALS.

**BICKFORD'S PATENT**  **SAFETY FUSE,**  
FOR CONVEYING FIRE TO THE BLASTING ROCKS, &c  
Obtained the PRIZE MEDALS at the "ROYAL EXHIBITION" of 1851; at the "INTERNATIONAL EXHIBITION" of 1862, in London; at the "IMPERIAL EXPOSITION," held in Paris, in 1865; at the "INTERNATIONAL EXHIBITION," in Dublin, 1865; at the "UNIVERSAL EXPOSITION," in Paris, 1867; and at the "GREAT INDUSTRIAL EXHIBITION," at Altona, in 1869.

**BICKFORD, SMITH, AND CO.,** of TUCKINGMILL, CORNWALL, MANUFACTURERS AND ORIGINAL PATENTEES of SAFETY-FUSE, having been informed that the name of their firm has been attached to fuse not of their manufacture, beg to call the attention of the trade and public to the following announcement:

EVERY COIL of FUSE MANUFACTURED by them has TWO SEPARATE THREADS PASSING THROUGH THE COLUMN OF GUNPOWDER, and BICKFORD, SMITH, AND CO. CLAIM TWO SUCH SEPARATE THREADS AS THEIR TRADE MARK.

For Excellence and Practical Success of Engines 

Represented by Model exhibited by this Firm.

**HARVEY AND CO.,** ENGINEERS AND GENERAL MERCHANTS, HAYLE, CORNWALL, HAYLE FOUNDRY WHARF, NINE ELMS, LONDON, AND 115, GRESHAM HOUSE, E.C.  
MANUFACTURERS OF

PUMPING and other LAND ENGINES and MARINE STEAM ENGINES the largest kind in use, SUGAR MACHINERY, MILLWORK, MINING MACHINERY, and MACHINERY IN GENERAL, SHIPBUILDERS IN WOOD AND IRON.

**SECONDHAND MINING MACHINERY FOR SALE,** IN FIRST-RATE CONDITION, AT MODERATE PRICES.  
PUMPING ENGINES; WINDING ENGINES; STAMPING ENGINES STEAM CAPSTANS; and CRUSHERS of various sizes, BOILERS, PITWORK of all descriptions, and all kinds of MATERIALS required for MINING PURPOSES.

**THE PATENT PNEUMATIC STAMPS** May be SEEN AT WORK at HAYLE FOUNDRY WHARF, NINE ELMS, by previous application at either of the above addresses.

BY ROYAL LETTERS PATENT. 

**THOS. BORLASE'S PATENT METALLIC ORE-DRESSING MACHINE.**

#### ADVANTAGES.

GREAT SIMPLICITY and ECONOMY of CONSTRUCTION and operation. The stuff is taken direct from the stamp. Nine-tenths of the tin or other mineral treated is saved at the first washing. The superintendence and attention required is the least possible. The motive power necessary is very trifling.

LEAD ORE.—Four-fifths will be made fit for the market by one washing. TIN ORES.—Four-fifths are cleaned into whits with one washing. Dressing-floors can be laid out in shorter time and much more economically than with ordinary appliances.

Upwards of five-sixths of the labour cost for dressing is saved.

#### EXTRACTS FROM TESTIMONIALS.

From Captain RICHARD BLIGHT, Cregbraswe and Penkevill United Mines, near Chacewater, February 19, 1872:—

I have seen the tin-dressing machine at work at North Roskear Mine, and fearlessly say it is the best machine I ever saw. I do not hesitate to say it saves nine-tenths of the tin directly it passes over it, and eight-tenths of the tin is saved into whits at once.

From Capt. JOHN OLD, Breage, February 22, 1872:—

I have inspected Borlase's patent revolving metallic ore-dressing machine at North Roskear Mine, and am pleased to say that I have a very high opinion of it as a complete separator. I tried the roughs and slimes after it left the separator, and found it to be very poor. This testing of the machine was very satisfactory to me, and I can with confidence recommend it.

From Capt. RICHARD PEARCE, Dolcoath, March 2, 1872:—

I have seen your machine for dressing tin ore working at North Roskear, and am pleased with the simplicity of its working, and it seems to separate its work very well.

From Capt. ANTHONY JOHNS, North Roskear, March 4, 1872:—

I have worked your dressing-machine and I find it will do its work as a separator and cleaner admirably. The whits for burning are very good, and the roughs pass over it are very poor. I have great confidence in recommending it, as it saves much manual labour.

From Capt. JOHN REYNOLDS, Cook's Kitchen, March 4, 1872:—

I called at North Roskear Mine to-day, and saw your new tin-dressing machine at work. I viewed the different divisions of roughs and slime as classified by the machine, and found them highly satisfactory. I believe it to be the foundation of a method for dressing tin which must, sooner or later, come into general use.

From Mr. F. PASCOE, tin dresser, Tuckingmill, March 4, 1872:—

It will do for any class of work; for slimes it is first-class. It is equal to four times boulding by passing over this machine once.

From Mr. S. H. STEPHENS, tin dresser, Great Wheal Fortune, March 5, 1872:—

I have seen Mr. Borlase's patent machine in full operation at North Roskear Mine, and I willingly bear testimony to its efficiency for cleaning tin ores—in fact, it makes the best separation in one running I ever saw, either in this country or in America.

THE MACHINE CAN BE SEEN AT WORK AT NORTH ROSKEAR MINE, CAMBORNE, and all further particulars may be obtained on application to—

**TUCKINGMILL FOUNDRY COMPANY,**

CAMBORNE, CORNWALL.

The SOLE MANUFACTURERS of BORLASE'S IMPROVED PATENT PULVERISERS AND ORE DRESSING MACHINES, to whom all orders must be sent.

#### ECONOMY AND EFFICIENCY COMBINED.

**WALKER'S PATENT DIRECT CENTRAL-LIFT STAMPS** are EQUALLY APPLICABLE to ALL CLASSES of MINERAL, and effect an IMMENSE SAVING of POWER and COAL. Stamps ready for delivery can usually be shown in operation, and working model can always be seen.

These stamps are fitted with a NEW KIND of BED, giving four grates to each stamp. Licensees granted to adapt the arrangement to existing stamps, to which it is equally applicable. Also,

**WALKER'S DIRECT PLAN OF AMALGAMATION, RETORTS, &c.**

PRESSES for PACKING WOOL and COTTON in the Colonies.

JOHN WALKER, MINING AND COLONIAL ENGINEER,

12, JAMES STREET, OLD STREET, LONDON, 1.

**LOSS OF LIFE OR LIMB,** WITH THE CONSEQUENT LOSS OF TIME AND MONEY, CAUSED BY

ACCIDENTS OF ALL KINDS,

PROVIDED FOR BY A POLICY OF THE

RAILWAY PASSENGERS' ASSURANCE COMPANY.

An annual payment of £3 to £6 5s insures £1000 at death, or an allowance at the rate of £6 per week for injury.

£725,000 have been paid as compensation—

One out of every twelve Annual Policy Holders becoming a claimant each year.

For particulars, apply to the Clerks at the Railway Stations, to the Local Agents or at the Offices,—

64, CORNHILL, and 10, REGENT STREET, LONDON.

WILLIAM J. VIAN, Secretary.

**THE IRON AND COAL TRADES' REVIEW:** ROYAL EXCHANGE, MIDDLESBOROUGH.

The IRON and COAL TRADES' REVIEW is extensively circulated amongst the Iron Producers, Manufacturers, and Consumers, Coalowners, &c., in all the iron and coal districts. It is, therefore, one of the leading organs for advertising every description of Iron Manufactures, Machinery, New Inventions, and all matters relating to the Iron, Coal, Hardware, Engineering, and Metal Trades in general.

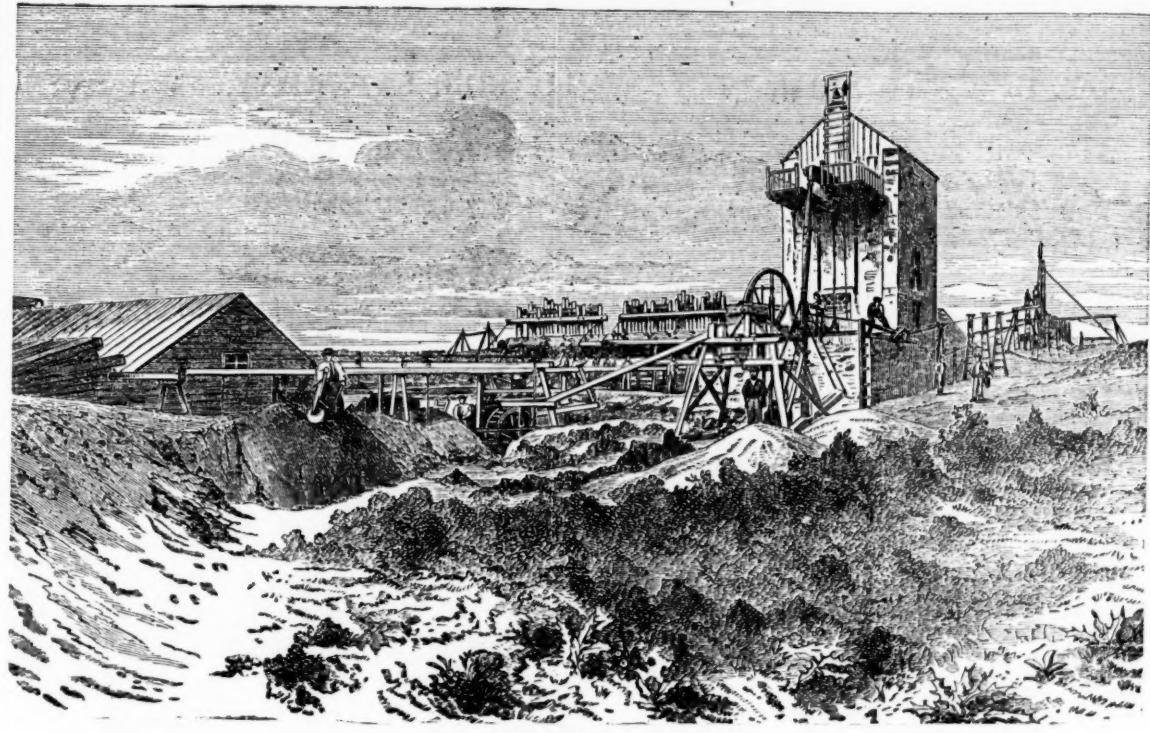
Offices of the Review: Middlesborough-on-Tees (Royal Exchange); London, 11 and 12, Red Lion-court, Fleet-street; Newcastle-on-Tyne (50, Grey-street).

# Wheal Tregoss Tin Mine, Limited.

INCORPORATED UNDER THE COMPANIES ACTS 1862 AND 1867, WHEREBY THE LIABILITY OF THE SHAREHOLDERS IS LIMITED.

**CAPITAL £15,000, IN 15,000 SHARES OF £1 EACH,**

Fully paid up, and on which a minimum of Interest at the rate of £10 per cent. per annum is guaranteed for Three Years, from the 29th of November, 1872, payable half-yearly.



#### DIRECTORS.

A Meeting of the Shareholders will be held immediately after allotment, at which Meeting any Shareholder holding not less than 100 Shares will be eligible for election. Meantime the two undermentioned gentlemen have consented to act during the formation of the Company, viz.:—

JOHN MARTYN, Esq., Merchant, Wadebridge.

HENRY FRANCIS WHITEFIELD, Esq., Solicitor, St. Columb.

OFFICES OF THE COMPANY—(pro tem.)  
165, STRAND, LONDON.

SECRETARY (pro tem.)  
D. AMIS, Esq.

#### PROSPECTUS.

This company is formed for the purpose of working and further developing a tin mine situated in one of the best tin districts in Cornwall—namely, the Tregoss Moors, where tin has been wrought since the days of the Phoenicians, and is still the principal industry of the district.

The mine is supplied with a powerful steam-engine, with 32 heads of stamp attached; the dressing-floors have been laid out at great expense; the shaft has been sunk 25 fms., levels and cross-cuts driven, and the lodes to that depth laid open, so that their existence and value are established beyond doubt. Large rocks of tin-stone, recently broken from the lodes, may be seen at the offices of the company, and the mine is now in full working order, and in a position to make immediate returns.

The greater part of the shares have been taken by persons who well know the value of the property, and subscriptions are now invited for £5000 only, with which it is intended to further sink and develop the mine, whereby the returns will largely increase, and great profits accrue to the shareholders. The additional capital required may be taken either in shares or debentures of £100 each, bearing £10 per cent. interest, and redeemable in three years.

So anxious of success are the vendors that they have agreed to guarantee a minimum dividend of £1 per cent. per annum on the capital of the company, payable half-yearly, for a period of three years from November, 1872. It is anticipated, however, that the actual return will far exceed the guarantee, and it is rather a novelty in a new mine to be able to say that the first return, which was made early in October, left an actual profit on the working.

It should be mentioned that this mine was inefficiently worked for two or three years by a small Cost-Book Company under the name of "Great Royton," but owing to divisions and pecuniary difficulties of shareholders the company collapsed at the moment of success. The present opportunity is, therefore, one that rarely offers to shareholders, instead of having to wait, as in many cases, years for the result of their speculation, here find a mine already proved and its value established, but only requiring a little additional capital to lead to large profits.

The details of the lodes now being operated on, and the workings, will be found in the report annexed, and attention is drawn to the fact that the tin already raised and sold by merely superficial operations has realised about £2000. The geological formation of the sett is all that can be desired, being killar near the junction of the granite, similar to where the most productive mines of Cornwall and Devon have been found. The Tregoss Moors have been profitably strained for tin deposited in the low ground by the disintegration of the lodes from time immemorial, and the fact of the adjoining sett having been taken by a Cornish gentleman largely connected with mining shows most strongly the high appreciation in which the locality is held.

This being a plain statement of the prospects of the sett, attention is called to the advantages offered, which are most unusual:—

1.—Ten per cent. guaranteed for three years.

2.—The mine is already at work, and returns are being made.

3.—All the expensive machinery, buildings, and works have been provided.

4.—The large extent of the sett, being a mile on the course of the lodes, and the value of the lodes already wrought upon, as evidenced by the reports and actual returns.

5.—The limit of the shareholder's liability to the amount of his shares, and the great probability of a future increase in the price of tin.

The only contract entered into bears the date the 8th day of October, 1872, and is made between Samuel Hockaday and E. G. Hamley of the one part, and Wheal Tregoss Tin Mining Company (Limited), of the other part, and may be seen at the office of the company.

#### R E P O R T.

DEAR SIR,—I beg to hand you my report of this mine. The engine-shaft is sunk

26 fms. below the surface; we then came up and drove the level 4 fms. above the

bottom of the shaft, so the level is 22 fms. below the surface; what we call the 22 fm. level. Our principal driving is on King's lode, east of the engine shaft; the lode being very large, and will average about 20 ft. wide, and in some places we have had some rich work for tin. The lode will yield from 10 to 12 lbs. of tin to the ton of lodestuff—that is, taking the lode as a whole. We have driven 36 fms. east on this lode at the 22, and the lode now in the present end is greatly improved in this last 2 fms. driving, and some as fine rocks of tin as were ever seen in the mine have been taken out this last week. We are now near to the north lode, coming in and forming a junction with King's lode, when I expect a great improvement. I should here state that the lode at the 22 fm. level is greatly improved in value to what it was in the adit, or 10 fms. below the surface. We have only driven a few fathoms west of the engine-shaft on King's lode, which is very large, and is of the same value. We have driven a cross-cut 20 fms. north from the whim-shaft at this level, and have cut into the north lode, which we find 6 ft. wide, and will yield about 20 lbs. of tin to the ton of lodestuff. This is a most promising lode indeed, and I think will yield very large quantities of rich tin-stuff. There are several other lodes a little further north of this north lode which I have reason to believe are rich for tin, as we have found rich stones of tin on the backs of these lodes. We have also three lodes south of King's lode, what we call south lodes, and from the increase of tin from the adit, 10 fms. below the surface, to the 22 fm. level, is worthy of remark, and I would recommend the sinking of the engine-shaft (say) 12 fms. deeper at once. I would also recommend driving south to intersect the south lodes, as I feel confident that the lodes will be found richer for tin at that depth—say, 32 or 34 fms.—10 or 12 fms. below the present level. The engine-shaft can be sunk about 4 fms. per month, which would require three months to sink 12 fms., when you would have a paying mine at once, and by putting up (say) 32 more stamps to the present engine you would have a dividend mine; the lodes being so large that a 10-fm. sink would lay open very large quantities of rich tin-stuff to take away.

Looking at the increase of tin as depth is attained, I have every reason to believe that the lodes will be found rich 10 fms. below the 22, when you would have a valuable mine, and in addition to these tin lodes, you have a large iron lode back of the south lodes. I have found some rich ironstones on the run on the back of this iron lode. This lode has been worked on further south, and the lode is found there 20 ft. wide in places, and there have been raised in that mine tens of thousands of tons, and they are still raising large quantities. You can raise iron ore in your set by opening the lode near the surface as an open cutting, which has been done in this neighbourhood. The new railway now making will pass near the iron lode, so that the ore can be carried to Newquay or Parr, two excellent shipping ports, for a few pence per ton. You will also have coals, &c., brought very cheaply to the mine. I would recommend the south cross-cut to be driven to intersect the iron lode at the 22 fm. level; it is only a short distance, and would drain the iron lode 20 fms. below the surface. I am of an opinion that this iron lode will be found a source of great wealth to the mine. I have very great confidence in the mine, and feel assured you will have a valuable mine in Wheal Tregoss.

Wheal Tregoss, Sept. 19, 1872.

THOS. PARKYN.

#### FORM OF APPLICATION FOR SHARES.

(To be retained by the bankers.)

To the Directors of the Wheal Tregoss Tin Mining Company (Limited).

GENTLEMEN.—Having paid to your bankers the sum of £ being the full amount per share on shares of £1 each in the above company, I hereby request you to allot me that number, and I agree to accept such shares or any less number which you may allot me, and I hereby also authorise you to insert my name on the register of members, for the number of shares allotted to me.

Christian and surname in full \_\_\_\_\_

Residence \_\_\_\_\_

Occupation \_\_\_\_\_

#### Registration of New Companies.

The following Joint-Stock Companies have been registered:—

London Bank of Commerce (Limited).—Capital £1,000,000., in 20,000 shares. To carry on banking business in all its branches. The subscribers (who take 500 shares each) are—H. Labouchere, 9, Park-street, Westminster; E. J. Halsey, 12, Leadenhall-street; J. Stamford, 29, Prince's-gate, Hyde-park; E. A. Pincock, The Albany, Piccadilly; Louis Floersheim, Bartholomew House; E. Erlanger, Paris; and the Franco-Oesterreichische Bank, Vienna.

New Zealand Fibre Company (Limited).—Capital £40,000., in 100,000 shares. For the cultivation of hemp, &c., at Kauhi, province of Auckland, New Zealand. The subscribers are—J

## Meetings of Public Companies.

## COLONIAL BANK.

The seventieth half-yearly general meeting of proprietors was held at the London Tavern, Bishopsgate-street, on Thursday,

Mr. J. GURNEY HOARE in the chair.

Mr. CALVERT (the secretary) read the notice convening the meeting, and the subjoined report of the directors:

In pursuance of the requisitions of the charter, the directors lay before the proprietors a statement of the debts and assets of the corporation on June 30, 1872, which also shows the amount of net profit made during the half-year ending at that date.

DEBTS.	£ 457,719 13 4
Deposits, bills payable, and other liabilities	2,984,788 13 11
Paid-up capital	600,000 0 0
Reserved fund	67,000 0 0
Balance of profit from last half-year	446 13 1
Net profit for the half-year	48,794 8 4

ASSETS.	£ 4,158,749 8 8
Due to the bank in the colonies, on bills discounted and purchased (including those past due), &c.	1,646,082 17 6
Due to the bank in the colonies, on current accounts	33,740 9 9
Due to the bank in London, on bills remitted, cash at bankers, &c.	2,254,754 2 6
Bank premises and furniture, in London, and in the colonies	7,457 13 5

£ 216,684 5 6

£ 24,158,749 8 8

It affords the directors satisfaction to present a statement which enables them, after providing for all losses, to recommend the payment of a dividend at the same rate as that declared at the last half-yearly meeting; and they have the further satisfaction of stating that at the last dates in their possession from the branches the business was proceeding with fair prospects for the future. They, therefore, propose that from the net profit, which amounts, after providing for all bad and doubtful debts and income tax to

An ordinary dividend be made of 6 per cent., and an extraordinary dividend of 1½ per cent. on the paid-up capital of the corporation, which together will require

45,000 0 0

Leaving

Add balance of profit from last half-year

Making

From which the directors propose to carry to the reserved fund

Increasing to 70,000<sup>l</sup>, leaving to be carried forward to next half-year £ 1,241 1 5

The CHAIRMAN really did not think there was anything to add to the information contained in the report, which he was sure they would consider highly satisfactory; but he would be glad to answer any question which might suggest itself to any of the proprietors. He would, therefore, simply move one resolution "That an ordinary dividend of 6 per cent., and an extraordinary dividend of 1½ per cent. be declared payable on and after Jan. 8."

Mr. T. D. HILL seconded the resolution, which upon being put to the meeting, was unanimously adopted.

The retiring directors and auditor were unanimously re-elected, and the proceedings terminated with a cordial vote of thanks to the Chairman and directors, the proprietor moving it remarking that it was particularly gratifying to have their affairs managed by gentlemen in whom they could place perfect confidence.

## BRYNAMBOR LEAD MINE COMPANY.

The ordinary general meeting of shareholders was held at the offices, Moorgate-street, on Tuesday, —Mr. N. PLANT, F.G.S., in the chair.

The report of the directors stated that during the year now closed the directors have given their most careful consideration to the affairs of the company, and considering the limited funds at their command, they feel there is much cause for congratulation. The mine continues to improve in a corresponding proportion to the labour and money expended upon it, and the directors believe that if they continue the sinking and drivings in a mining-like manner, and to the fullest extent practicable, the shareholders will very shortly be in receipt of good dividends. Immediately the directors were in funds they re-commenced the sinking of the shaft, and so soon as they get to the 32 new levels will be driven, and they confidently anticipate most encouraging results. Sheds are being erected which will afford sleeping accommodation for the men, and the hauling machinery has been removed and greatly improved.

Dec. 172.—To be submitted to you my report of the above mine for the annual meeting, to be held on the 31st inst., it affords me great pleasure in being able to state that all my former assertions as to the value of this property are now being realised. We have just struck some splendid lead ore in the shaft, and the mine throughout fully corroborates my previous statements as to "what might be expected in the future"—a good paying mine. Although our workings for the past year have been somewhat limited, owing to various unavoidable difficulties, still great progress has been made in the development of the mine and in the extension of the ground for stoning. The following is a detailed account of work done, and what I advise being done in the future:—The engine-shaft has been sunk below the 22 fm. level 6 fms. 4 feet 2 in., for the first few fathoms in sinking the lode was much compressed in consequence of the hard band of ground to be seen at the 22 ft., but as soon as there was a change in the ground the lode began to improve, and continues up to the present to do so, with every indication of still further improvement: owing to its being so very Vaughn, or open, we are obliged to carry down some of the ground in the hanging wall, therefore there is only a few feet of the lode being taken down in sinking; this part is yielding splendid lead, and I have not the slightest doubt that it will continue to develop itself into a large course of ore; in fact, the present appearance of the lode is all that can be desired. Before we could commence sinking many alterations had to be made in the pitwork: now main rods to be put in the shaft, with pulleys, &c., for them to work on, new bearers and easter, with new lift of pumps fixed at the 22, old lift of pumps removed and again dropped in shaft to sink below the 22, pent-house put in to keep men secure while sinking, new plat cut at the 22, &c., all of which took considerable time; this with the hard bar of ground sunk through, and the incessant rains, together with unavoidable hindrances, caused the progress in sinking to be not so fast as I could have wished, but everything has been done that could be done to further its progress, and in consequence of the lode becoming porous, and the influx of water greater. I am afraid our present sinking lift is not of sufficient size to enable us to reach the 32, and drive underneath the main run of ore ground. However, I intend lengthening the stroke; this will prepare us to master ½ more water than at present. The 22 fm. level has been extended east 23 fms. 4 ft. 3 in., making the total distance east of shaft 23 fms. 3 ft. 3 in.; the lode in the forepart is the full size of the level and of great promise, yielding good tons of lead ore. At 8 fms. east of the shaft we intersected the cross branch of lead, and the lode from this point to the extremity of the drivage (16 fms. 3 feet) will pay for stoning away. A rise has been put up on these cross branches, and communicated to the 12, a distance of 8 fathoms 6 in., which not only ventilates the mine, but lays open ground for stoning at a much cheaper rate. At about 2 fms. below the 12 fm. level, in this rise or winze, the lode is cross-cut into, and found to be upwards of 1½ feet wide, worth for lead per fathom, for the width of the lode, 1½ ton of ore. Should this lode continue in value, we have now reserve ground laid open as follows—16 fms. 3 feet long by 8 fms. high—132 fms., at the rate of 1½ ton per fathom, will yield 165 tons, or realise, if we estimate at 13<sup>1/2</sup> per ton (which I think we can with safety do), 2145<sup>t</sup>. I will here remark that by the further driving of the 22 fm. level east the reserves will correspondingly increase, and so soon as we reach the 32 fm. level, and the levels extend each way of the shaft, I can without doubt say the value of the reserve ground will be quadrupled, and from the present character of the lode the reserve ground can be stoned away at about 3<sup>t</sup> per fathom for stoning, therefore good profits will accrue. We shall now, as soon as possible, commence preparing lead for the market. We have already at surface about 10 tons of lead ore, which was broken during the sinking, driving, rising, &c. We have driven a few fathoms on the longitudinal course of the cross branch between the 12 and the 22; this I believe to be a true vein, and forms a junction with our lode in an oblique direction, which, in my opinion, is the cause of the lead ground lengthening in depth, and is an important feature for the further development of this mine.—Surface: The work done at surface is as follows:—New wheel-pit excavated for new hauling machine, stone raised for building, new pulley stands erected for pumping-wheel to shaft, foundation for cottages, office, store-room, smithy, &c., taken out, and a great portion of the materials for building purposes are on the mine, but owing to the very heavy floods, which prevented the carriers from carrying the materials, those buildings would now be completed. The incessant rains have made it impossible to carry on surface operations with any satisfactory progress, but taking into consideration the amount of money expended, and the unavoidable difficulties encountered, a reasonable amount of work has been done, and the value of the mine considerably augmented, during the last 12 months. The following is a summary of work done:—The engine-shaft sunk 6 fathoms 4 feet; the 22 fm. level driven east 23 fms. 4 feet 3 in.; the rise and winze from the 22 to the 12 fm. level 8 fms. 0 ft. 6 in.; the driving on cross branch and cutting into lode 6 fms.: total, 44 fms. 2 feet 9 in. This with cutting plat at the 22, changing pitwork, excavating new wheel-pit, erecting new pulley-stands, and repairing adit level when the flood broke in, taking out foundation for cottages, raising stone for new wheel-pit, cleansing water-course, &c., with necessary monthly merchants' accounts, including carriage and agency, has not cost over 1100<sup>t</sup>. I conclusion, beg to state that the splendid lode in the shaft sinking towards the 32, and also were it has been opened in other parts of the mine, fully warrants this property becoming very productive, and will speedily verify my former assertions; to do which I advise the continuation of the sinking of the shaft, drive levels each way of the shaft at every 10 fathoms sinking, put ventilating winzes or rises through from one level to the other at intervals of (say) every 15 fathoms driving; this will lay open the mine so that it can be worked in the most economical manner, and will enable you to value the reserves as you progress, and by laying out the dressing-floors on the most improved principle, so as to save manual labour as much as possible, not a doubt exist on my mind (if the work I advise be carried into effect) that the results will be attended with great success.—GEORGE SPARGO, M.E.

The CHAIRMAN said that before entering this company he inspected the mine, accompanied by Capt. Spargo, the manager. At the bottom of the 22 fm. level he saw such indications as to justify him in forming a most favourable opinion, the correctness of which was verified by the report just read—the lode becoming more condensed and richer for lead as the depth was extended. He found the machinery of a very simple character, and the finances of a very straitened character. He, therefore, recommended to the directors the desirability of issuing more shares, to provide means for the development of the mine upon a larger scale. His recommendation had been adopted, but a small amount was yet required to bring the property into a remunerative condition. The balance at the

bankers was small, and not sufficient to carry on the works. Capt. Spargo estimated the reserves in the mine at more than 2000<sup>t</sup>—that is, the ore actually in sight; and by taking out this ore sufficient means would be realised to enable them to purchase and erect the proper machinery and lay out dressing-floors. The advice, however, of the board was not to apply these "reserves" for the prosecution of the works, which were properly chargeable to capital, but that they should be left for the purposes of dividend, and the capital provided by the issue of further shares. The subscribed capital amounted to 8600<sup>t</sup>, and Capt. Spargo was of opinion that if the amount were made up to 10,000<sup>t</sup>—that is, if 1400 more shares were issued—a sufficient amount would be provided for all their requirements, by placing the works in perfect order, and supplying enough machinery to dress the ore so that it could be brought to market, and enable the directors within the next year to return a very good dividend to the shareholders, when their shares would command a premium as high as those of any English mine. The directors did not advise that the subscribed capital should exceed 10,000<sup>t</sup>, their object being to keep it as small as possible, so that the dividends should be the larger. (Hear, hear.) He then moved the reception and adoption of the report and balance-sheet.

Mr. BUTTERIDGE seconded the proposition. The directors had really not been anxious about issuing the capital beyond just enabling them to keep the mine going, because Capt. Spargo, in whom they had the greatest confidence, said that if at some future time it should be deemed desirable to issue the balance there would be chances of doing so at a good premium. It would, of course, be proposed to offer any issue that might be agreed upon to the shareholders in the first instance, although the whole might be easily placed among the directors and their friends, who would gladly take the whole of them at par, as within the last fortnight such a change had taken place in the mine as to leave no doubt whatever as to its success.

The CHAIRMAN, in reply to a question, stated that the purchase-money was 6500<sup>t</sup>, of which 5000<sup>t</sup>, was in shares and 1500<sup>t</sup> in cash. The vendor had applied for 625 shares, and paid for them, and had consented to accept the balance of the cash due to him in the proportion as the unallotted shares should be issued or profits realised.

Mr. BURRIDGE said that the directors did not receive any remuneration, while the office expenses, including secretary, &c., did not exceed 100<sup>t</sup> per year.

Mr. BUFFEN (late director) stated that he had resigned his seat at the board simply because he had not the time to give proper attention to the duties of the position. He held between 500<sup>t</sup> and 600<sup>t</sup> worth of shares, and had not sold one. The only practical question before the meeting was if this proposed further capital were subscribed whether there was really a prospect that the mine would pay dividends. He would ask Capt. Spargo what it would cost to make the "reserves" of ore ready available?

Capt. SPARGO said it would cost about 6<sup>t</sup> per fathom, including stoning, hauling, dressing, royalty, and carriage.

Mr. BUFFEN said that under those circumstances it would cost about 1000<sup>t</sup>, to get out the reserves, of the value of 2143<sup>t</sup>, and it seemed to him that it would be a profitable and proper course to pursue to extract this ore and sell it. If Captain Spargo could tell him he would be able to declare a dividend, he (Mr. Buffen) was sure the shareholders would come forward and subscribe the necessary capital.

Capt. SPARGO said from every present appearance of the mine he had every confidence of giving a great dividend in another twelve months. The lode in the shaft would more than pay for sinking, and in the 32 more "reserve" ground would be laid open, and of greater value, as the lode improves in depth. In four months they might calculate upon having another 4000<sup>t</sup> worth of "reserves."

Capt. SPARGO said the lode in the shaft was really a course of ore, and believed that before another week had elapsed a still further improvement would take place, because water could be heard some fathoms in advance, showing the porous character of the lode.

Mr. H. H. THOMPSON had watched the company from its commencement, and believed its operations had been somewhat crippled for want of capital, but it appeared to him it was now in a better position than heretofore, the reserves being estimated at over 2000<sup>t</sup>. It would be a very great mistake to subscribe more money than was absolutely required for the present necessities of the mine. He was rather a large shareholder, and he wanted large dividends, and the smaller the capital the larger the dividends would be.

The notice adopting the report and balance-sheet was put and carried unanimously.

It was unanimously resolved that 1375 shares be offered to the shareholders, making the subscribed capital 10,000<sup>t</sup>. About 500 were taken up in the room.

Messrs. Plant and Heseltine were re-elected directors.

A vote of thanks to the Chairman and directors terminated the proceedings.

## UTAH SILVER MINING COMPANY.

The adjourned extraordinary general meeting of shareholders was held at the offices, Austinfriars, on Thursday,

MR. GEORGE BATTERS in the chair.

Mr. W. J. LAVINGTON (the secretary) read the notice convening the meeting.

The report of the committee appointed on Dec. 16 states that, pursuant to the resolution adopted at the last meeting of shareholders, the members of your committee have met the directors from time to time for deliberation, and the following are the conclusions arrived at:—Having carefully gone into and considered the reports of Prof. Clayton and the superintendent of the mines, and tested them as far as possible by independent information, the committee are of opinion that the mine is a valuable one, and that ore can be obtained in large paying quantities if additional capital be raised. The committee are of opinion that smelting should be discontinued, as suggested at the last meeting, and that the dressed ore should be disposed of in Utah, or forwarded via San Francisco direct to England. To discharge the present liabilities (estimated at 7000<sup>t</sup>), and to provide adequate working capital, a sum of 28,000<sup>t</sup> is required, and the committee concur with the directors in thinking that this sum should be raised by debentures secured by a mortgage on the property and machinery of the company. The committee have strongly represented to the directors the desirability of their taking prompt action to rescue the mine out of the hands of the sheriff forthwith. The committee have anxiously deliberated with the directors concerning Mr. Murphy's management of the mine at Utah, and they are unanimously of opinion that a change is imperatively necessary, and the committee would also suggest that a re-organisation of the board of directors would tend to give confidence to the shareholders. Mr. Bateman, the vendor of the property, although appointed a member of the committee, has not been able to attend any of the meetings. The committee, in conclusion, have pleasure in acknowledging the assistance and information they have received from the directors and officers of the company. They are also indebted to Mr. F. W. Snell, who has attended all their meetings, and advised them on legal points.

The CHAIRMAN said that the important point in the report of the committee was that they agreed with the directors that the company possessed a really valuable mine, and that advantage can be obtained from the large paying quantities of ore already discovered by the raising of additional capital. The committee were also of the same opinion as the directors that smelting should be discontinued, and that the operations in future should be confined to simply dressing the ore and selling it either in Salt Lake City or in this country. Their present liabilities were about 7000<sup>t</sup>, the correctness of which had been further confirmed by the receipt since the last meeting of the accounts; and a letter had also been received from the resident secretary setting forth more particularly the nature of the discovery in the Dartmouth Mine, together with the assays of the quality of the ores, from which it appeared that they yield 50 per cent. of lead and about 20<sup>t</sup> ozs. of silver per ton; and the galena 50 per cent. of lead and 16 ozs. of silver per ton. The carbonates could be sold very readily, and almost as raised; and the galena ore, if sent to this country, could be sold for 20<sup>t</sup> per ton, the cost of freight, carriage, &c., being about 10<sup>t</sup> per ton, leaving a profit of 10<sup>t</sup>. According to the opinion of those best able to judge, the mine was capable of easily returning 500 tons per month, which would realise a profit of about 60,000<sup>t</sup> a year. The letter from the resident secretary, in whom the board had perfect confidence, stated that, "Looking to the fact that the ore could be sold on the 'dump,' and the level was only in 100 ft., and that the cost was only 10 cents (2s.) per ton, delivered to the smelters, I consider it is one of the most important discoveries yet made." Their resident secretary generally took a gloomy view of the company's affairs, but now for the first time he that with efficient superintendence it will, doubtless, prove highly remunerative. As to the changes recommended by the committee, he might mention that Mr. Murphy soon after the last meeting sent in his resignation, but the directors had advised him to withdraw it, inasmuch as they did not see where to get a better man to take his place. Mr. Murphy had consented to retain his position at a living salary and a small percentage on the profits. As to the present board and directors, they were quite prepared to serve the shareholders for the future as they had at least tried to do in the past, and if it were the pleasure of the shareholders the board would continue in office; if otherwise, they would retire at the annual meeting, which would shortly be held. The board thought that, at least for the present, it would be advisable for all parties to pull together, and towards that end would gladly support a proposition that any gentleman from the body of the shareholders should be added to the board. (Hear, hear.) The board were of opinion that the best interests of the company would be served by sending out Mr. Murphy as manager, with a couple of men experienced in the

dressing of lead ore. Mr. Murphy had been to the Van Mine, and had satisfied himself that the Utah ore could be dressed for a few shillings per ton by a mere nominal outlay for machinery. Mr. Murphy would not require any more German jiggers, but merely one pair of Cornish rollers, which could be attached to their present engine; and, as soon as the ore were in transit and the bill of lading here, with samples, they could be sold, or, at all events, an advance could be obtained upon them; therefore, a great deal less than 28,000<sup>t</sup> would carry on the business in a most successful manner. The first thing would be to discharge their liabilities, amounting to 7000<sup>t</sup>. The last advices received show that there was no risk of losing the company's property by the attachment, at least ample time had now been secured to release it from the hands of the sheriff. The scheme about to be submitted for raising the additional capital had received the acquiescence of the personal friends of the directors, all of whom had promised to subscribe for their proportionate interest; and the directors conscientiously believed that, looking at the smallness of the company's capital, by carrying out the original idea of simply dressing the ore and sending it to this country, or selling it there if it would obtain a better price, the shares in the Utah Company would soon command a high premium and the enterprise prove a very great success. The company's solicitor in Salt Lake City had written to say that he had sought Mr. Warren Hussey's permission to allow the smelting of the ores to be continued, and mentioned other facts proving that the discovery at the Dartmouth Mine was a matter of notoriety in the district, and that the mines were valuable; Mr. Hussey had told the company's solicitor that he had "no doubt he would have to take the mines into his own hands." He (the Chairman) would now leave the matter to be discussed by the meeting by proposing the following resolutions:—

"That 1400 debentures or promissory notes for 20<sup>t</sup>, sterling each be created and offered to the shareholders, and that the amount of each such debenture be paid as follows:—10<sup>t</sup>, on or before Jan. 11, 1873, and 10<sup>t</sup>, on April 11, 1873, when the said debentures or promissory notes shall be issued; that such debentures or promissory notes be made payable on Jan. 1, 1876, together with a bonus of 25 per cent. on each bond, and interest in the meantime from the day of issue at the rate of 10<sup>t</sup> per annum, free of income tax, payable on Jan. 1, 1874, and

the 95 east a cross-cut is driven south 5 fms., and intersected the south part of the lode, where a small branch of ore was met with a few inches wide, which increased in size to 3 ft. wide, worth 10/- per fm., this we consider a very important point, and likely to further improve, being within a short distance of the deposit of ore seen in the levels above, worth 30/- per fm. The lode in the stopes in back of the 95 is worth 25/- per fm. The 92 east has also improved, opening up a fine piece of productive ground over 4 fms. long, varying in value from 10/-, 20/-, and 30/- per fm., the latter being the value of the present end. The lode in the stopes in back of the 82 is worth 20/- per fm. The lode in the rise and stope in the back of the 70, going up in the direction of Moor's bunch, seen at the 50, is worth 15/- per fathom. This statement concludes the principal part of our operations during the past four months, except stopping upon the different parts of the lode, including old ground, from which we have obtained 541 tons of copper ore, and 60 tons of manganese. For the future development of the mine we think it advisable to continue the same points of operation for some time, and increase as fast as the nature of the work may require, by sinking the engine-shaft below the 105, and driving the 105 west in new ground, also open upon the lode in such places as may be required, which we hope will be profitable to the adventurers.—G. Rowe, G. Rowe, Junr.

The CHAIRMAN said that the report contained all the information the committee had to communicate, although Capt. Rowe was present to reply to any question shareholders might desire, and the accounts, made up to November, showed a loss on the four months' operations of 200/-, but the last two months showed a profit of 40/-, the actual loss amounting to 161/- 2s. 7d. According to the report, the shareholders had reason to expect that at the next meeting there would be presented a balance-sheet at least as satisfactory as that submitted upon the present occasion.

Mr. HICKIEY, in reply to a question, stated that the only cost not included in the accounts now before the meeting was the labour pay, which was not due till Saturday. The last sale was made on Dec. 19, and the ore on the mine would come against that cost.

Mr. HUNTER said if the ore were sampled one month before the day of sale it was clear that all the ore raised since November 19 up to the present time was to come to the credit of the company.

Mr. CHIVERTON said the committee endeavoured to bring up the accounts as closely as possible.

Capt. Rowe, in reply to a question, stated that the ground in the engine-shaft was easy for sinking, and the present engine would be ample to carry the mine to a still further considerable depth, for even during the whole of the present incalculable wet season, it had not exceeded three strokes per minute, and during the summer very little more than 1½.

Capt. Rowe asked the returns computed during the next four months?

Capt. Rowe hoped to be able to show an increase as compared with the past four months, and that a more satisfactory balance sheet would be submitted at the next meeting.

Mr. HICKIEY reminded the shareholders that the three bottom levels were now in productive ground, which at the last meeting were only producing stones of ore, so that there could not be a divided opinion that the general position and prospects of the mine were much more favourable than the last time they met; so that Capt. Rowe had solid grounds for stating that at the next meeting the financial position of the company would be more satisfactory than it was at the present time.

Capt. Rowe said he never liked to promise much, always preferring actual results to be better than his promises.

The accounts were passed and allowed, and with the report were ordered to be entered on the minutes.

The CHAIRMAN said the committee proposed to carry forward the balance to the credit of the next account, hoping that at the next meeting they would be in a position to recommend the declaration of a dividend.

After some discussion it was unanimously agreed to carry forward the credit balance, and to leave the question of the resumption of the sinking of the engine-shaft to be determined by the committee and manager.

The committee of management were re-elected. A vote of thanks to the Chair-man concluded the proceedings.

**NEW QUEBRADA COMPANY.**—At the meeting yesterday, after a discussion of more than four hours, the directors' report was adopted by a show of hands, and the retiring directors were re-elected, an amendment to replace three of them by three other gentlemen having been lost. A poll was demanded, however, on all the points, which was freely taken place on Thursday, 23rd inst., and the result will be declared on January 24, at 12 o'clock, at the Cannon-street Hotel, to which date the meeting was adjourned. Considerable satisfaction was expressed that there is now a fair prospect that the company will become a success, owing to arrangements being just completed with the Bolivar Railway Company, which will be brought out in a few days, to carry this company's ore. We shall give a report of the proceedings in next week's Journal.

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**GLAMORGANSHIRE.**—At a general meeting, held at the offices, it was resolved, "That the company be wound up voluntarily, and that Mr. Fred. Harper, public accountant, of Coleman street, be appointed liquidator."

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**SOUTH TOLCARNE.**—A general meeting was held on Tuesday, Mr. D. Fraser in the chair. Mr. J. Hickiey (the secretary) read the notice convening the meeting, and the minutes of the last were confirmed. The accounts showed a credit balance of 41/- 1s. 8d. The Chairman was pleased to present to the shareholders so favourable a report of their property. He considered it highly encouraging, especially with regard to the tin lode, which was so productive in the adjoining mine, and run through the set. They had only about 5 fms. to drive now to intersect it; this could be done in about six weeks, and there is every reason to believe it will be found productive. They would not require to make a call to-day, as the funds in hand would be sufficient to carry them over another quarter. He then moved that the accounts, with the agent's report, be received and adopted. The committee of management were re-elected, and a vote of thanks to the Chair-man terminated the proceedings.—[The agent's report is among the Mining Correspondence.]

**WHEAL GRENVILLE.**—At the meeting, on Tuesday, the accounts showed a balance of liabilities of 1300/- 1s. 8d. This balance is occasioned, firstly, by charging up an extra month's cost of 1000/- to the end of November, or four months' costs against three sales of tin; secondly, from the costs of the past quarter having been lost through completing the necessary work at the north shaft; thirdly, from the selling off in the produce of tinstall at the 100 and 90 fm. levels. The average price of tin sold during the past quarter is also less than the previous three months, when 43 tons were sold for 37/-, or an average of about 87/- per ton; the last three months were 35 tons, realising 283/-, or an average of about 80/- per ton, whilst there has been no corresponding drop in the price of coal and other articles. The agents report favourably of the mine, particularly as regards the prospects on the South Cornish lode, which, whatever may be said to the contrary, has undoubtedly gone out at the 140, the lode being out of South Cadbury Mine and into Wheal Grenville at or about the 92 fm. level of the former mine. The various points of operation in Wheal Grenville were worth the mining in the aggregate 18/- per fathom, and since the agent's report was written the improvement has taken place in the 110 winze, and the 120 east.

**PROVIDENCE.**—At the meeting, on Dec. 31, the accounts to the end of October showed a credit balance of 310/- 1s. 5d. This is the first meeting for 21 years that they have not given a quarterly dividend; but the tin standards have now advanced 3/- per ton, and they look forward to soon resuming their dividends. In Providence and Trelyon United part of the lode in the winze sinking below the 40, is worth 12/- per fathom. The falling off in the returns is entirely owing to the decrease in the value of the Carbon branch south from No. 3 north lode. All other parts of the mine are looking much the same as for some years past. There are 226 men employed underground, and 135 persons at surface, making 421 per cent. in all.

**WHEAL SETON.**—At the special meeting, held on Friday at the mine, everything passed off most quietly. The shareholders desiring a change of executive were represented by Mr. J. R. Paull, of the firm of Messrs. Carlyon and Paul, of Truro; and the partner, Mr. H. Tilly, by Mr. H. Rogers, of Helston. The accounts showed a balance of 1250/- against the adventurers. A call of 3s. 10d. per share was made. Mr. Tilly decided to resign his position of purser at the expiration of the month. Captain T. Angrove moved that the entire pursership and management of the mine should be offered to Captain W. Teague, of Tincroft, Carn Brea, and other mines, and that he should be empowered to appoint what other agents he might think fit. Mr. Maynas seconded this, and it was carried. Capt. Teague took the adventurers for their offer, and said he was present to explain away some little misunderstanding which he feared had crept into the world. His first observation to Mr. Rogers that day was, that if the management of the mine was offered to him, then the existing circumstances he certainly should not accept it. The master had, however, been gone into, and they had had a quiet meeting, and he would think their offer over, and in the meantime they would not go without some one to look after their property. A discussion then arose as to the agents on the mine, and it was decided that if Captain Teague desired to dispense with their services he could do so, and was also empowered to act liberally to them. Mr. Blight, the clerk, tendered his resignation, which was accepted.

**ST. JUST AMALGAMATED.**—The annual meeting was held at the mine on Saturday. Among those present were Mr. Henry L. Phillips, managing director; Mr. Richard Pryor, local manager; and Messrs. Richard Boys (bank) and William Holman, local shareholders. The report of the directors and the balance-sheet, made up and audited to Oct. 31, were received and passed. Mr. Alfred Hall was re-elected a director, and Mr. Frederick Warwick re-appointed the company's auditor. The report concludes with the following hopeful paragraph:—

"We have no hesitation in saying that, taking the present position of our mines into careful consideration, and with a spirited development of the different places herein mentioned, the day is not far distant when we shall be in a position to give equal profits to those given by any of the neighbouring mines."

**WHEAL UNY.**—A general meeting was held on Thursday (Mr. G. C. Semmens in the chair), when the accounts showed a debit balance of 857/- 7s. 4d. A call of 5s. per share was made. The accounts, with the agent's report, were received and adopted, and the committee of management re-elected. A vote of thanks was passed to the Chair.—[The report is among the Mining Correspondence.]

[For remainder of Meetings see to-day's Supplement.]

## THE MINING JOURNAL.

### MINING NOTABILIA.

[EXTRACTS FROM OUR MINING CORRESPONDENCE.]

**BOSCASTELL DOWNS.**—Can any of your readers give any account of the Boscastell Downs Mine? It is on your list among the dividend-paying mines, and the last dividend paid in October, 1871. Some six or seven months ago a discovery of copper close to surface was reported, since which we have heard nothing about it. Again, the mining captain, in your Journal about a month ago, reports, by telegram, another discovery of tin (report to be sent by letter). No report has been published. Is the whole affair a sham or not?—A SHAREHOLDER.

**WEST MARIA AND FORTESCUE.**—An improvement is reported in the bottom of the mine on the West Maria lode, and also in the 71, on the Capel Tor lode. The greatest discovery of modern times at Wheal Maria (the western portion of the Devon Great Consols) being within stone-throw of the eastern boundary of this mine, and the different lodes being embedded in the same general channel of country, further good discoveries may reasonably be anticipated as the operations proceed in this promising tract of mineral ground.

**BOSCASTELL DOWNS.**—You may expect great results here. Independent of the vast reserves in the splendid old mine the new proprietary are doing what should have been done years ago—throwing out cross cuts to intersect the numerous side lodes; and this has already been attended with the most satisfactory results, several valuable discoveries having been made. As a Cornishman, I am pleased to see the old "bal" (of which we all have a right to be proud) in good hands.

**Capt. SAMUEL GEORGE, M.E., of Redruth,** it appears is not leaving for the Brazils, as a correspondent stated last week, but has just left for Tunis and Algeria, and will on his return inspect some mines in Spain and Portugal.

### GROGWINION LEAD MINE—SPECIAL REPORT.

**Dec. 27.**—I made a careful examination of this mine, both at surface and underground, on the 11th and 12th instant. Its position is most favourable for developing and working it cheaply. The sett extends from the River Ystwhal along the sides and top of a very steep mountain, for about 1 mile in length, and the run, or bearing of the veins, is the same as the longitudinal direction of the mountain, so that the mine can be worked to the depth of nearly 300 yards from surface by means of adit levels only. It is about 10 miles from Aberystwith, with good roads; is near the rich Cwymyswith and Lisburn Mines, so long worked by Messrs. J. Taylor and Sons, and is exactly in the same rock formation. Four fine powerful veins have been proved in the ground, running through the whole length of the sett, of which have been, more or less, worked upon by former parties, and on the top of the mountain there is unmistakable evidence of old Roman workings. Except so far as the subject bears upon the present state and future prospects of the mine, I shall not go into a history of its former workings, nor the great profits stated to have been realised therefrom. From the workings made, however, and the large heaps of halavans on the floors (most of which will well pay for crushing and dressing by machinery), it is evident that large quantities of lead ores have been raised and sold from here; and judging from the quantity of halavans, in comparison with the extent of workings, I should infer that the veins had been very wide, and that the mine was much more favourable than the last time they met: so that Capt. Rowe had solid grounds for stating that at the next meeting the financial position of the company would be more satisfactory than it was at the present time.

Capt. Rowe said he never liked to promise much, always preferring actual results to be better than his promises.

The accounts were passed and allowed, and with the report were ordered to be entered on the minutes.

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**SOUTH TOLCARNE.**—A general meeting was held on Tuesday, Mr. D. Fraser in the chair. Mr. J. Hickiey (the secretary) read the notice convening the meeting, and the minutes of the last were confirmed. The accounts showed a credit balance of 41/- 1s. 8d. The Chairman was pleased to present to the shareholders so favourable a report of their property. He considered it highly encouraging, especially with regard to the tin lode, which was so productive in the adjoining mine, and run through the set. They had only about 5 fms. to drive now to intersect it; this could be done in about six weeks, and there is every reason to believe it will be found productive. They would not require to make a call to-day, as the funds in hand would be sufficient to carry them over another quarter. He then moved that the accounts, with the agent's report, be received and adopted. The committee of management were re-elected, and a vote of thanks to the Chair-man terminated the proceedings.—[The agent's report is among the Mining Correspondence.]

**WHEAL GRENVILLE.**—At the meeting, on Tuesday, the accounts showed a balance of liabilities of 1300/- 1s. 8d. This balance is occasioned, firstly, by charging up an extra month's cost of 1000/- to the end of November, or four months' costs against three sales of tin; secondly, from the costs of the past quarter having been lost through completing the necessary work at the north shaft; thirdly, from the selling off in the produce of tinstall at the 100 and 90 fm. levels. The average price of tin sold during the past quarter is also less than the previous three months, when 43 tons were sold for 37/-, or an average of about 87/- per ton; the last three months were 35 tons, realising 283/-, or an average of about 80/- per ton, whilst there has been no corresponding drop in the price of coal and other articles. The agents report favourably of the mine, particularly as regards the prospects on the South Cornish lode, which, whatever may be said to the contrary, has undoubtedly gone out at the 140, the lode being out of South Cadbury Mine and into Wheal Grenville at or about the 92 fm. level of the former mine. The various points of operation in Wheal Grenville were worth the mining in the aggregate 18/- per fathom, and since the agent's report was written the improvement has taken place in the 110 winze, and the 120 east.

**PROVIDENCE.**—At the meeting, on Dec. 31, the accounts to the end of October showed a credit balance of 310/- 1s. 5d. This is the first meeting for 21 years that they have not given a quarterly dividend; but the tin standards have now advanced 3/- per ton, and they look forward to soon resuming their dividends. In Providence and Trelyon United part of the lode in the winze sinking below the 40, is worth 12/- per fathom. The falling off in the returns is entirely owing to the decrease in the value of the Carbon branch south from No. 3 north lode. All other parts of the mine are looking much the same as for some years past. There are 226 men employed underground, and 135 persons at surface, making 421 per cent. in all.

**WHEAL SETON.**—At the special meeting, held on Friday at the mine, everything passed off most quietly. The shareholders desiring a change of executive were represented by Mr. J. R. Paull, of the firm of Messrs. Carlyon and Paul, of Truro; and the partner, Mr. H. Tilly, by Mr. H. Rogers, of Helston. The accounts showed a balance of 1250/- against the adventurers. A call of 3s. 10d. per share was made. Mr. Tilly decided to resign his position of purser at the expiration of the month. Captain T. Angrove moved that the entire pursership and management of the mine should be offered to Captain W. Teague, of Tincroft, Carn Brea, and other mines, and that he should be empowered to appoint what other agents he might think fit. Mr. Maynas seconded this, and it was carried. Capt. Teague took the adventurers for their offer, and said he was present to explain away some little misunderstanding which he feared had crept into the world. His first observation to Mr. Rogers that day was, that if the management of the mine was offered to him, then the existing circumstances he certainly should not accept it. The master had, however, been gone into, and they had had a quiet meeting, and he would think their offer over, and in the meantime they would not go without some one to look after their property. A discussion then arose as to the agents on the mine, and it was decided that if Captain Teague desired to dispense with their services he could do so, and was also empowered to act liberally to them. Mr. Blight, the clerk, tendered his resignation, which was accepted.

**ST. JUST AMALGAMATED.**—The annual meeting was held at the mine on Saturday. Among those present were Mr. Henry L. Phillips, managing director; Mr. Richard Pryor, local manager; and Messrs. Richard Boys (bank) and William Holman, local shareholders. The report of the directors and the balance-sheet, made up and audited to Oct. 31, were received and passed. Mr. Alfred Hall was re-elected a director, and Mr. Frederick Warwick re-appointed the company's auditor. The report concludes with the following hopeful paragraph:—

"We have no hesitation in saying that, taking the present position of our mines into careful consideration, and with a spirited development of the different places herein mentioned, the day is not far distant when we shall be in a position to give equal profits to those given by any of the neighbouring mines."

**WHEAL UNY.**—A general meeting was held on Thursday (Mr. G. C. Semmens in the chair), when the accounts showed a debit balance of 857/- 7s. 4d. A call of 5s. per share was made. The accounts, with the agent's report, were received and adopted, and the committee of management re-elected. A vote of thanks was passed to the Chair.—[The report is among the Mining Correspondence.]

[For remainder of Meetings see to-day's Supplement.]

### WATSON BROTHERS, MINING AGENTS, STOCK AND SHARE DEALERS, &c., 1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

**SATURDAY.**—Active demand for South Roman Gravels, West Tarkerville, Roman Gravels, Creborth, and Van Consols. South



had a leader about 2 in. wide. The lode in the present end is 2 ft. wide, composed of flockan, white iron, lime, spar, and mundio, and producing good stones of lead, with a promising appearance for an improvement shortly. The lode in the south end is of the same size and composition, but during last week we cut more water; this, with the late heavy rains, has proved too much for our pumping machinery—a horse-engine, with which we drew our stuff. We have thought it advisable to suspend the operations at the 20 for one month and see whether or not the water will fall off; an if in the meantime we strongly advise the erection of a steam portable engine, which we can buy or hire. This would keep the water if it were here now, and draw the stuff as well, and do away with horse-hire altogether. Looking at the kindly and promising appearance of the lode in the 20, and seeing we are drawing near the object for which we started, we think we are in a position to warrant us advising the company to buy or hire such an engine, which would be cheaper than horses, do its work better, and enable us to sink the shaft a considerable depth deeper. Our confidence in the concern is unabated.

**GORESD AND CELYN LEVEL.**—John Jones, Jan. 2: North Shaft: In the cross-cut driving to the Merlin vein, there is more water coming from the forebreast than we have yet seen, which is favourable. The adit level driving is advancing satisfactorily, containing, if anything, a little more ore.—East Gorseid: Our discovery here is turning out more valuable. The men drew up stonewall 3 tons of lead, and it will not surprise me if the four men employed will break stonewall.

**GREAT LAXEY.**—J. Polglase, Dec. 31: The various stopes, ends, shafts, and winzes throughout the mine are about the same in value as when last reported. We are preparing for additional jiggers, and hope soon to get them to assist us in our dressing operations, which is the great desideratum. We are also making every possible preparation for hauling stuff in larger quantities, and consequently increase our returns.

**GREAT MOUNTAIN.**—J. Fraser, Jan. 1: The crushing-mill is at work again, and we are preparing everything to increase our quantities, so as to make up what we have lost with changing the rollers. No. 1 lower cross-cut and No. 4 deep adit are going on well. The stope at No. 4 is looking better this week than ever it has done before. The ore seems to collect together towards the north wall of the lode, and is extending more to the west towards No. 1.

**GREAT NORTH CARADON.**—G. Rickard, Jan. 1: The lode in the north adit is at present unproductive. In the engine-shaft there is a favourable change in the ground. The machinery is working well.

**GREAT RETTALLACK.**—John Harris, Dec. 28: The ground in the adit end is more favourable for driving on, and the lode is producing a little jack; the last two or three fathoms driving has been very troublesome to the men, the ground being made up of tough hard seams of capel and soft ground between them, which make it very difficult to go through. I have dialled the adit level to-day, and from information I have received about a level gone west from the cross-cut, driven south from the old engine-shaft, there is now standing between the present end and this level, about 11 fathoms, but from the two last points of my own dialling this is in the 10 cross-cut, south from the old engine-shaft, and the present end of the adit level there is 18½ fms. standing, and I have put the men to drive for a point between those two points, which will make about 15 fms. more to drive to communicate with the old mine.

**GREAT SOUTH CHIVERTON.**—J. Narcarrow, Jan. 2: The ground in the 75 is much the same as last week, and the men are making pretty good progress. The rise above the 60 is not very rich for lead. The water has increased considerably, but we can keep it now easily with two boilers.

**GROGWYNIAN.**—Jno. Kitto, Dec. 28: I have much pleasure in being able to inform you that, since my last monthly report, the prospects of the mine have very considerably improved. In the shallow adit level, west of cross-cut, we have cut into a small lode, worth at present fully 2 tons of lead ore to the fathom, with every prospect of further improvement. This is a most interesting feature, and one that can scarcely be overestimated, as we have a longrun of productive ground before us, and about 40 fms. high and dry over our heads, which cannot, in my opinion, fail to produce large quantities of ore. The rise in the roof of the shallow adit level towards the shaft is progressing favourably, and the lode is of the most kindly description, so much so that we are in daily anticipation of meeting with a good bunch of ore; it is very seldom in lead that it is unproductive when of the same general character and composition, and I hope in my next to be able to report a decided improvement in its value. We have pumped the water out of the two stamps, 10 fathoms below the shallow adit on No. 3 lode, and in the bottom of the latter there is a very good lode of lead ore, worth at least 2 tons to the fathom, and which will in all probability further improve as greater depth is attained. I am strongly of opinion that this lode will ere long become the main-producing lode of the mine, and that the time is not far distant when it will be found a productive and profitable as the other lodes in this property, or in any of the other rich mines in this locality have ever been. There has been no material change in the intermediate adit level since my last report. We are pushing on the driving here with full force, and expect now to be far off No. 3 and 4 levels, which, as I think I have before told you, will be together at this point, and will in all probability be found more or less in a communication when intersected. We have commenced driving west, in the deep adit level on No. 1 lode, towards Bone's workings, and I've already a little ore, which so far improves our advance; the old level was driven on a false branch which took us much to the north, and I have brought the men back to drive on the main course, but as we have not had time to do much here yet, I must reserve any comment thereon for next report. We have laid nearly 100 fathoms of new tramroad in the deep adit level, and have now completed the same, and commenced on Thursday last to drive west of cross-cut on No. 3 lode; here we have a very fair prospect to start with, and I expect soon to have to announce an improvement. I am pleased to say that the present prospects of the mine are altogether exceedingly encouraging, and I have no doubt that we shall soon have a good paying concern.

**GAYDYR PARK.**—W. Bennett, Jan. 1: The following was set on Saturday, the 25 fathoms level end to drive north of engine-shaft, by two men, the month, at 7s. per fathom; the lode in this end is without change. The 25 fathoms level end to drive south, by four men, at 9s. per fathom, steat the month; lode worth 5 cwt. of lead ore per fathom—very promising looking lode. The stope north of shaft, at th. 15, to six men, at 5s. per fathom; lode worth 16 cwt. of lead ore per fathom. The stope south of shaft, at the 15, to four men, at 9s. per fathom; lode worth 15 cwt. of lead ore per fathom. We have 11½ tons of lead ore cleaned, 2 tons in course of dressing, and 1½ ton broken underground.

**HALKYN DEEP LEVEL.**—The d. p. l. level, going south-west off the Deep Level vein, is in a hard bar of limestone; present price for driving 10/- per yard. There is no change to notice in the 174 re-opening south-west on the Deep Level vein; the lode is all crushed together in soft clay timber ground at present. The cross-cut driving south at the 159 yards level at Pant-y-gro shaft, is still in a nice white congenital limestone. We find good strong spots of lead and blende mixed up in the limestone as we drive forward. The lode in the rise over the 160 yards level, south of junction of Trusty's shaft, on the Pant-y-firth vein, is about 3 ft. wide, composed of ridges of limestone, clay, and producing solid stones of lead ore. The 161 yards level, north of north shaft, on the Pant-y-firth vein, is in a large lode. We have about 4 ft. in width in the driving of this level, and there appears to be more standing to the east. We purpose now to put out a short cross-cut eastward to ascertain the full width of the lode previous to rising against the winze sunk below the 110. The west part of the lode that the level has entered upon consists of limestone, spar, and strong spots of lead ore, altogether a promising lode.

**HANGSTON DOWNTOWN CONSLS.**—J. Richards, Jan. 2: The lode in the 140 west continues a fine course of ore, worth 85/- per fathom. The north and south portions of the lode in the 120 west, and west of the point of communication, are worth 9/- per fathom. The lode in the winze in the bottom of the 120, east of Griffin's winze, is worth for length of sink (8ft.) 60/- per fathom. In the 110 west the lode is composed of quartz, capel, and mundio, with occasional stones of ore—very promising. In the stopes below the 110 west the lode is worth 60/- per fm. The ore sold on the 11th ult. weighed yesterday 311 tons, realising 10/6d.

**KING ARTHUR'S (Silver Lead).**—Capt. in Hitchens, Jan. 1: We have now cut through the No. 1 lode at the 18 fm. level below adit, and find it from 2 to 2½ ft. wide, composed of a nice quartz, white iron, mundio, some good spots of blende, yellow copper, and silver lead. I have set the end to drive east 4 fms., to four men, for 20/- the job (the men, of course, to find themselves). Since which they have driven some feet, and so far the lode improves every foot, producing more copper and lead; and I quite believe before we are at the end of the 4 fms. we shall have a good paying lode, and I strongly advise the present shareholders to secure further interest, for I feel convinced we are coming to a good run of ore, and to push the work with more force, as we ought, in order to open up the mine as it should be, to sink the shaft another 5 fms. at least; we should then open up more ground for stoning. Although we have now a very strong lode, with two well-defined walls going down, with an underlie of about 18 in. to the fathom, still I am strongly of opinion there is more lode to the north of our present level, and as soon as there is room, and the other men have completed cutting the shaft, I shall put them to cross-cut further north. I should also advise cross-cutting the other lodes to the south, as some of them cannot be far off the bottom of the shaft. On the whole, I am much pleased with the result so far, and have every confidence we shall soon have a good mine.

**LYNN-Y-PANDY.**—Matthew Francis, Jan. 1: The mine looks more promising than ever, traces of ore being met with every stem, and I am looking forward every day to be in a position to apprise you of a great discovery.

**MINERA UNION.**—J. Nicholls, Jan. 2: Boundary Shaft: In the cross-cut west of the 40 yard level the ground consists of limestone, with spots of lead; the pitch in the 50 yard level north is worth 30 cwt. of lead per fathom.—Brainerd's Shaft: The pitch in the 50 yard level north is worth 8 cwt. of lead per fathom. The other pitches are yielding lead as usual.

**NEW CROW HILL.**—T. Trelease, Dec. 31: The winze sinking under the 35 is the same as last reported, still 2 feet wide, with every appearance of an early improvement. The 45 fm. level end east is very wet, and ground rather hard, but with only two men driving the progress is slow. There are branches producing stones of lead ore.

**NEW EAST WHEAL LOVELL.**—C. Bawden, Jan. 2: We have discovered the Lovell north lode; it is 3 ft. wide, and carries good stones of tin. We have now opened on the course of these two lodes (which are so rich in the adjoining mine, the Lovell) for about 200 fms. in length, and from all appearance cannot fail to turn out large quantities of tin as depth is attained.

**NEW DOLGOATH.**—J. Vivian and Son, and N. Clymo, Jan. 2: We cannot speak of any alteration on our various points of operation of any importance since our last report. We hope to furnish you with a detailed report next week.

**NEW HENDRA.**—W. Rose, R. King, Jan. 2: Since our last meeting we have not made very great progress in driving the deep adit level; the ground has been hard, and there has been some difficulty in getting men to work; besides which our exertions have been chiefly directed to the Croft Indies part of the sett. The lode in the adit end, for the length driven since last meeting, has occasionally produced stones of tin and also copper, but at present it is small and unproductive.—Croft Indies: A good deal of work has been donehere. We have hired a portable steam engine of good power, which we have fixed, with necessary appliances, in a house. The shaft is at the 10 fm. level, at which point, as the rainy season sets in, we found that the 6 in. lift was not of sufficient size to keep the large quantity of water. We were, therefore, compelled to change this lift for a larger one, and have now a 9-in. one in full working order, which we believe will, as soon as the recent unseasonable heavy rains diminish, no doubt enable us to resume the sinking of the shaft, and to further explore the very promising lode which we have discovered here. We have driven the 10, west of engine-shaft 12 fms.; the hole throughout has produced saving work for tin: in the present end it is worth 4/- per fathom, price for driving, 2/- At this level we have effected a junction with the south lode, and have now commenced to drive east on it; the lode is looking very kindly, producing a little tin; looking at the surface indications a little in advance of the present point, we have reason to believe that the lode will considerably improve shortly. West of the engine-shaft about 10 fms. we have put down a shaft 10 fms. for drawing and ventilation purposes, which we have found, and shall find, very advantageous for giving air and discharging the stuff broken, as well as for more speedily opening up this part of the mine. We have had so much difficulty

with the water at Croft Indies that our progress underground has not been so great as we could wish. Having, however, new pumping machinery in excellent working order, and under ordinary circumstances quite adequate for our purpose for some time to come, we have no doubt that in the next three or four months we shall be placed in a more favourable position, as the lode so far as seen gives every reason to hope that successful results will follow its development.

**NEW NORTH Y.N.**—W. Williams, Jan. 2: We are crossing through the lode at the present end of the level, which is 43 fms. from the mouth. I am glad to inform you that this lode is gradually improving as it gains cover; it is 3 fms. wide, and no sign of being through it, showing ribs of spar and spots of lead, with water issuing from it. The air is getting rather bad, therefore I have ordered a water-blast and pipes for them.

**NEW ROSEWARNE.**—John James, Joseph Rule, Dec. 28: There is not much change in the mine since last reported. The copper part of the lode, west of the 48 rise, is improving; we think we shall meet with good bunches of copper going west about the elvan course. We have sampled about 50 tons of copper ore, which will be sold next week. It will, no doubt, realise a good price.

**NEW ROSEWARNE.**—John James, J. Rule, Jan. 1: We have nearly finished cutting the plat at the 94. The 94, driving west, is worth 5/- per fathom for copper, the tin part of the lode standing to the north. The 67, driving west of cross-cut, is producing stones of tin, and kindly for improvement. The 58, driving west of Pool's shaft, is unproductive. The winze sinking below this level is worth 20/- per fathom, 43 fms. from the mouth. I am glad to inform you that this lode is gradually improving as it gains cover; it is 3 fms. wide, and no sign of being through it, showing ribs of spar and spots of lead, with water issuing from it. The air is getting rather bad, therefore I have ordered a water-blast and pipes for them.

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**NEW WHEAL LOVELL.**—J. Prisk, Jan. 2: Kendall's: The men are making good progress in sinking the shaft below the 60. The lode is getting larger, and is producing some excellent stones of tin. I broke to-day some rich work from the very bottom, and I hope to be in a position to report an improvement at this point shortly. The 60 fm. level west is suspended for the present, and the men put to rise 3 fms. behind the end, to communicate with the winze sinking in the level above. This rise is opening tribute ground. The lode in the 60 fm. level east is getting larger, and producing occasional stones of tin, but the ground is rather hard for driving, and the progress slow. The lode in the 50 fm. east is looking better, and, from its present appearance, I think the horse of granite will shortly disappear, after which no doubt good lode will be met with. The lode in the 50 fm. is not looking quite as well; now worth 20/- per fathom. The copper part of the lode is about 25/- per fathom. The stope in back of the 46, east of west cross-cut, is worth 12/- per fathom. We have set a tribute pitch in back of the 74, east of Bickford's shaft, at 11s. in 1/-; also a pitch in back of the 58, west of Bickford's, at 12s. in 1/-, to have 65/- per ton for black tin. We shall set all the tribute we can.

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61 fm. level, east and west of cross-cut west of King's shaft, the lode is worth about 12/- per cubic fathom. In the 10 fm. level, east of new shaft, the lode is 1½ ft. wide, and worth 7/- per fathom. In the deep adit level, east of William's shaft, the lode is 1½ ft. wide, and worth 10/- per fathom. In the shallow adit level, east of Plantation shaft, the lode is 1½ ft. wide, and worth 6/- per fathom; in the same level west the lode is 1 ft. wide, and worth 4/- per fathom. In the winze sunk from the shallow to the deep adit level at Plantation shaft we have discovered a lode standing to the north of the one on which we sank, and we are now stripping this down, it being 1½ ft. wide, and worth about 8/- per fathom. We have discovered a bunch of copper ore in the back of the 51 fm. level, east of Vivian's shaft, worth about 12/- per fathom.

**SOUTH DARREN.**—J. and W. H. Boundy, Dec. 30: The lode in the 90 west is 2 ft. wide, composed of spar, mudiic, lead, and copper ore, and from present appearance we soon expect an improvement. No lode has been taken down in the 80 west since the last report. The lode in the 70 west is 2½ feet wide, composed of blue killas, spar, carbonate of lime, lead, and copper ore; worth 12/- per fm., with kindly appearance and promises further improvement. The stopes throughout the mine are much the same in appearance and value as last reported. We are getting on with the surface operations as fast as the weather will permit.

**SOUTH LISBURNE.**—F. Williams, Dec. 31: It affords us much pleasure to state that the lode in the new winze, in bottom of the 45, 56 fms. west of shaft, continues productive for blonde, its yield for that mineral being from 17 to 18 cwt.s. per fm. As this will open out quite a new section of ground, the success at this point cannot fail to be of great importance, for the general opinion in the locality is that we have but to sink deeper to strike into a course of lead ore. The two stopes over the back of the 45, 56, and 35 fms. of shaft respectively, are worth for blonde, in the aggregate, about 1½ ton per fathom. The stope over the back of the 34, 39 fms. west of shaft, is yielding about 17 cwt.s. of blonde per fathom. Of the stope over the back of the 27 we have no fresh remark to make, the lode being of much the same character as when we last reported. Our three parcels of blonde, computed 40 tons, have been purchased by Messrs. Dilwyn and Co., and we shall send away the same as soon as we get the trucks. The dressing operations are being urged on as fast as possible.

**SOUTH MARGARET.**—J. Nicholls, Jan. 1: During the past four months the following work has been done:—The engine shaft has been sunk 2 fms. 2 ft. 6 in.; the lode in the bottom of the shaft is 2 ft. wide, worth from 10/- to 12/- per fathom, a very promising lode. We have not been able to sink since October, on account of the great increase of water, but we hope in about two months more our deep adit will sufficiently drain it that the sinking may be resumed. Hand's air shaft has been sunk 6 fms. 1 ft., and as soon as the weather permits it should be communicated with the adit for ventilation. The deep adit has been driven 10 fms. 3 ft. 6 in., the lode in places yielding good saving work; the stratum in the end is now very congenial, and the lode, although small, has a kindly appearance for improvement, and I have no doubt we shall soon reach the run of tin ground the engine-shaft is on. The shallow adit has been driven 11 fms. 2 ft. 11 in., the lode generally yielding a little tin; and about 2 fms. behind the end we passed through a small cross-course, to the west of which there is a decided improvement in the lode; it is now 2½ ft. wide, saving work, and as promising a lode as can be seen in any mine at the same depth. This is the middle lode, which is only about 5 or 6 fms. North of the lode the deep adit and engine-shaft are on there is also another very promising lode about 10 fms., still further north. You will see by the accompanying section that our shaft will be 30 fms. deep at the adit, where by driving 15 or 16 fms. of cross-cut we shall have three lodes to work on. I consider our future prospects very encouraging. We have a considerable quantity of tinstuff accumulating at surface, and, from present indications, at our next meeting I shall be in a position to advise the erection of stamps. In the meantime our cost will be very light.

**SOUTH MERLLYN.**—John Jones, Jan. 2: There is no material change here since my last report. Everything proceeding satisfactorily.

**SOUTH PHENIX MINE.**—J. Kelly, Dec. 30: Pearson's shaft, Grace Dieu Lode: We are driving east and west on this lode in the 20 fm. level, on the south part of the lode, carrying the ends 6 ft. wide. The character of the lode gives every indication of being most productive for tin, composed principally of peach, and stones have been broken from the lode yielding upwards of 5 cwt.s. of tin to the ton of stuff, as mentioned in my last; this lode is 22 ft. 9 in. wide; the first 4 ft. is also good work for the stamps.—Greenhill Lode: Good progress has been made in sinking this shaft; last week we held the old timer's shallow adit, on the south side of the shaft. The elvan we met with some time since appears to have passed through the lode about the middle of the shaft, and moved the lode 6 ft. south on the eastern side; the old men drove on the south part of the lode, or a branch, and evidently lost the main part of the lode that our shaft has been sinking upon. This adit is driven west of the shaft about 8 ft., and we intend to drive a cross-cut from the present end north, and intersect the lode west of the shaft; to effect this we shall have to drive about 6 ft.; we shall then, in addition to sinking, be able to drive on the course of the lode, as the adit referred to will carry off the water; stones have been broken from this lode that have yielded 14 cwt.s. of tin to the ton of stuff; this lode is about 2 ft. wide. At the request of Mr. Pearson I have forwarded to the office a box of stones taken from both lodes.

**SOUTH ROMAN GRAVELS.**—John W. Powning, Jan. 2: Shelford Engine Shaft: Since last report up to yesterday the shaftmen were sinking by the side of the lode; we have since blasted it down, which I am pleased to say shows a rich mixture of carbonate of lime and lead ore, and worth of the latter full 1½ ton to the fathom. The lode in the present bottom is of a most promising appearance, and presents every indication of a continuous run of ore, it also goes down almost perpendicular, and will, therefore, intersect the north or footwall part in about 4 or 5 fathoms further sinking, at which point we expect important results. We have set the shaft to six men, the month, at 9/- per fathom. The deep adit crosses west, towards Roman Gravels lode, set to six men, the month, at 7/- 5s. per fm.; the trammimg, filling, and landing included.

**SOUTH TOLCAINE.**—Joseph Vivian and Son, James Pauli, Dec. 30: Since the completion of the engine shaft from the surface to the deep adit, and pending the erection of an engine for the purpose of exploring to deeper levels, our operations have been carried on vigorously at the deep adit, which has a depth of rather more than 30 fms. from surface, and has been extended from the north boundary of the sett 190 fathoms south across the direction of the lodes to the engine-shaft. Eight lodes have been intersected. In this distance, and we are now continuing the adit still further south, there being yet 50 fms. to the south boundary, in which we think we shall meet with more lodes. Of the lodes already intersected we have selected the following to open out on east and west of the adit cross-cut, of which we now furnish you with the following particulars:—Gossan Lode (128 fathoms north of the engine-shaft and the Engine lode): We have been driving the adit east and west on this lode, and have found it to be of a favourable character, containing generally a large proportion of gossan, with occasional bunches of rich yellow and black copper ores, having an average width of about 2 ft., and an underlay south, or towards the engine-shaft, of 2 ft. 9 in. in fathom. We have four men engaged in opening out this lode.—Tin Lode (116 fathoms north of the Engine lode): This is the great tin lode of the adjoining mine on the east, South Condurrow, and has in this mine yielded some rich parcels of tin at and as deep below the adit level as could be worked without draining machinery. We are now driving the adit south from the gossan lode to intersect the tin lode west of the cross-course, having four men engaged in this operation, and a distance of 5 fathoms more to reach our object, which we hope to do in six weeks. Seeing that this lode is now proving one of the richest in the production tin in this district in South Condurrow, and that it has also, in the very limited area in which it has yet received any trial in this mine, been found rich in the same metal, we expect favourable results from intersecting it west of the cross-course. This lode has a very rapid underlay south, and will thus apparently reach the engine-shaft at a depth of about 57 fathoms under the adit, or 55 fathoms from the surface. In dipping south it will, before reaching the engine-shaft, receive as tributaries dropping down on it five lodes, and will then form a junction with the Engine lode; whilst in continuing south it will probably meet with other lodes before reaching the boundary, which is 50 fathoms from the engine-shaft. This lode is a large masterly lode, being of an average width of 6 ft., and yielding a little yellow and black copperores with somethin. We have opened about 17 fms. on this lode.—Fraser's Lode (33 fathoms north of the engine-shaft): This is a strong lode, and looks likely to yield tin in considerable quantities, of which it has already produced some good samples. We have opened out 19 fathoms on this lode. It is important to notice that from the present underlay of this lode it will reach the engine-shaft, and be in junction with both the tin lode and the engine-shaft at a depth of from 50 to 60 fathoms under the adit.—Engine Lode: The engine-shaft has been sunk on this lode to a depth of about 14 fathoms under the adit, or 42 fathoms from the surface. Until the engine is erected we shall not be able to form an opinion of this lode in depth from our own observations of it in situ, but, judging from the broken lode stone which the former workers threw aside as worthless, we think it must have been gradually improving in the production of tin when the former operations were abandoned, for many of the samples which we have assayed from the heaps lying about the shaft are equal in produce to the average of some of the best tin mines of the district. In conclusion, we have only to call your attention to the fact that this mine is a continuation westward of the geological formation and belt of lodes of South Condurrow, the adjoining mine on the east, and that it presents every prospect of becoming equal, if not superior, to that mine in the production of tin and copper.

**SOUTH WARD.**—T. Foote, Dec. 31: Saturday last being our setting-day, the following bargains were set:—To sink the engine-shaft 6 ft., cut trip-plate, also the ground for tram-rod at the 60, at per bargain 30/-, by six men. To rise in the back of the 60 north, to six men, stented to hole, at 4/- 10s. per fathom; the rise is up 5 fms. 4 ft. 6 in., still on the slide. To sink the winze in the bottom of the 40 north to six men, stented to hole, at 7/- 10 per fathom; this winze is down 11 fms. 4 ft., making altogether with the rise 17 fms. 2 ft. 6 in. We hope to get a communication through in about a fortnight. A stope on the slide to drive south at the 40 by six men, stented four weeks, at 14/- per fathom; the lode in the end is not looking quite so productive, as when reported on last week, still fine, worth 15/- per fm., and promising to improve. It is as fine looking a lode as can be seen. The crusher is all right and ready to work. We want to finish the house before commencing the dressing, which will be done by the end of this week. The machinery is in good order, and working well.

**ST. AGNES CONSOLS.**—Wm. Vivian, Jan. 2: The engine-shaft is now 4 fms. below the 36. The shaftmen are fixing a pole in the 36. We hope to have the work completed and the water in fork about the middle part of next week. We have cut the Wheal Rock lode in the cross-cut in the 36; the lode is 3 ft. wide, very kindly in appearance, worth 12/- per fathom for tin. We shall commence to open east and west on the lode. This will shortly draw the water from the winze; we shall then resume the sinking of the winze, which is now 6 fms. below the 36; the lode is worth 15/- per fathom for tin. I hope to get the winze through to the 36 in four or five weeks from this time. That will ventilate the bottom of the mine, and open a good piece of tin ground for stowing. The stopes in back of the 26 are worth 9/- per fathom. In the 26, driving east of shaft, the lode is 2 ft. wide, worth 5/- per fathom for tin. The Wheal Rock lode is opening up at the different points quite to our expectations at present. We have every reason to believe the Wheal Rock lode will make a profitable mine of itself. We shall have a good parcel of tin to take to the smelting-house in the early part of next week from Wheal Rock lode.

**ST. BLAZHEY CONSOLS.**—P. Rich, Jan. 2: We are making good progress in clearing up the debris in St. Blazhey shaft at the adit level and securing the shaft with timber from surface to the adit. We have come upon a lode in the adit shaft of this shaft, which is 2½ feet wide, composed of tin, schwil glist, carbonate of lime, fluor-spac, &c.; a very promising lode in its character, it has been driven upon 8 feet from the shaft. Our surface operations are proceeding satisfactorily. The engineers have commenced the work for erecting the steam engine and plant purchased by the company.

**ST. DENNIS CONSOLS.**—T. Parkyn, Jan. 2: Since my last report we have opened the Pleyde lode, on which so much tin was raised, about 100 fathoms east of where we are now working. I find that the old miners have been here, and we have taken out some portion of the lode left by them, and it is splendid rich work for tin. We cannot as yet get to the bottom of the old workings for water. We

have also taken out rich work from the great north lode, which is close to the Pleyde lode, and will form a junction with this and other lodes just at this point, and I fully expect that you will have a large deposit of tin here.

**ST. LAWRENCE AMALGAMATED.**—William Wasley, Jan. 2: St. Lawrence: Yesterday being the first of the month, I set the 52 yard level for this month to drive at 72s. 6d. per yard; the ground is a little harder than it was, but I have no doubt it will soon get easier for driving. The lode is looking very promising, and producing some fine lumps of ore.—Valentine: We have passed through two small joints, and the ground is a little better for driving, and the men are now making very good progress. The men stowing in the 32 are getting a fair quantity of ore, and the stopes looking promising.

**TAMAR VALLEY.**—J. Goldsworthy, Jan. 2: Weston's engine-shaft is being forced on by a full pare of men, and good progress is made. The lode presents a favourable appearance. Judging from the character of the stratum and the matrix of the lode, and from the character of the lodes in the old Tamar mines, we have good reasons to expect a productive lode at a reasonable depth—say at the same depth as the old Tamar mines, 50 fms. There is no other change to notice since last advised.

**TANKERVILLE.**—A. Waters, Jan. 2: We are still cutting down the lode on the footwall side of Watson's shaft, below the 130, and find a rich course of ore as far as we have gone—nearly 3 fms. We intend to go still forward (say 2 fms. further), and when the ground shall have been squared down to that distance from the 130 the sinking of the shaft will be resumed. The lode along present bottom, 5 fms. below the 130, is worth 22/- to 23/- per fm., and the same remarks apply to the lode up and down the end of ground from bottom of shaft to the 130; we feel the richest portion of lode is still east of or behind the shaft. All other stopes and bargains are just as when last reported on. Setting report next week. To-morrow we shall send out samples of 100 tons lead ore, for sale on the 10th inst.

**THE LOVELL.**—J. Nancarrow, Jan. 2: The new wheel, and everything connected with it, continues to work well. The engine-shaft is now in full course of sinking, by 12 men, on a lode worth 15/- per fathom. The stope in the 12 is worth about 7/- per fathom. There is a little more water in the adit end, which indicates our near approach to the tin ground. We sell tin again on Friday.

**TRELEIGH WOOD.**—E. Hosking, John Harris, Jan. 1: In consequence of the Christmas holidays occurring since we last reported, very little change has taken place in the various bargains, but the mine is looking quite as well as on that occasion. The weather being so bad for our surface work we are not making that progress that we could wish, but we are pushing on everything as fast as we can.

**TRELEIGH WOOD UNITED.**—James Brown, Dec. 28: We are getting on as satisfactorily as the unusual wet weather will admit in erecting the 50-inch cylinder pumping-engine. The bob is in its place, and the cylinder will be fixed in the early part of next week. All other parts will be pushed on as fast as possible, in order to commence to send down the pitwork and fork the mine. We have cut ground for beavers and cistern, and shall complete the other necessary work at the engine-shaft by the latter part of next week. We have the pitwork on the mine, also the capstan and shears, and you may rest assured every effort will be made to finish the work in hand as quickly as possible.

**TRESELYNN (Tin).**—J. Hodge, Jan. 2: No 1 Level: There is no change here worthy of remark since my last; the men have been about surface work, and have only driven 4 fms. —No 2 Level: The ground here is at present harder than we have before seen it; we think it will change again for the better in a few feet; the lode is the same as last reported.—Surface Work: The ground for bob-pit and loading have been excavated; masons are building the walls and loading as fast as the nature of the work will admit of. The weather is much against outdoor work. All the timber required for putting the engine to work is on the mine, also the pit-work. On Saturday we are to have a wagon load of things from the foundry; the fixing of the same will be commenced forthwith, and the engine started as soon as it is possible.

**TREVARRACK.**—In the 61 east the lode is 18 in. wide, producing low-priced tinstuff, a very promising lode. In the 61 west the lode is 2½ feet wide, producing tin-stone, but at present not tin enough to value. In the 45 east the lode is 2½ feet wide, producing low quality tinstone. This end is also improving in appearance every foot we drive, from which I am daily expecting a course of tin.

**VAN CONSOLS.**—James Roach, Jan. 2: The 60 fm. level, east of Gundry's, on north part of lode, is yielding about the same quantity of ore per fathom as when last reported, but I expect a change for the better soon. The end is getting wet as it approaches the productive ground gone down in the bottom of the 45. The 45, east on north part of lode, is yielding occasional pieces of ore, associated with carbonate of baryta. The same remark will apply to south part, producing about 1 ton of lead per fathom, with appearances indicative of early improvement; the rise above this level against winze is yielding 2 tons of ore per fathom. The 45, east on water fissure, is producing detached stones of solid ore; the 45, west on water fissure, has not improved since my last. The 35, east of rise, is still yielding stones of ore. The 25, east of Little's, has greatly improved in appearance; we have not doubt we shall here enter a valuable lode in a short time. In the western engine-shaft we are now timbering through a run of ground in the 75 fm. level. I think this will be the last we shall have to contend with.

**VAUGHAN.**—Dec. 21: In the engine-shaft, sinking under the 20, the part of the lode being carried is chiefly composed of a light clay-slate, carbonate of lime, and crystallised quartz, containing occasionally spots of lead, and is being carried down with all speed to the required depth for a 32 fm. level, which will be done (weather permitting) in four weeks hence. In the 20, east of engine-shaft, the lode is about 1½ yard wide, of the same character as last reported on, yielding full 1 ton of lead per fathom. In the deep adit level east of the present end is composed of a light clay-slate, branches of carbonate of lime, and crystallised spar, containing small strings of mudiic and small spots of lead, highly mineralised. Just behind the end or forebreast we have intersected and passed through a soft branch, about ½ yard wide, running about 30° east of north, since which the ground has become favourable for progress, and hope it will continue so until we reach the wall of the lode. In the cross-cut north of surface, on Pryse's land, the ground is not so favourable for exploring, yet fair progress is being made. In the shallow adit west, on Fronferrig, the ground has undergone a change, the lode on the north part being soft. We are now driving on the south part of the lode, which is hard, being composed of a clay-slate and quartz, containing spots of lead, but not sufficient to value. Our machinery is in good working order.

**WEST CARADON.**—N. Richards, J. Pryor, Jan. 1: The lode in the 42, east of cross-course, will produce 3 tons of copper ore per fathom. Two stopes on this level will yield 1½ and 2 tons per fathom respectively. It will be remembered that we have driven for some considerable distance at the 30 through unproductive ground, but we are pleased to inform you that for the last few weeks we have been driving through a good lode, averaging fully 2½ tons per fathom, now worth 3 tons per fathom. This looks like a new shoot of ore, and from present indications there is every probability of our again having a good mine when this piece of ground is properly opened up. No other change to notice.

**WEST DRAKE WALLS.**—Thos. Gregory, Jan. 2: We are making fair progress in sinking the engine-shaft below the 65; there is no change in the character of the ground. In the 65 east we are driving by the side of the lode. In the 65 west we have cut through the lode to the south wall; it is composed of quartz, capel, &c., with a little mudiic and tin ore. We are opening on the lode at the 65 east to make room for sinking a winze in this level; the lode is producing stones of tin, with a little copper intermixed, and is of very promising character.

**WEST GODOLPHIN.**—J. Pope, jun., Dec. 31: Caunter Lode: Pressure shaftmen have commenced sinking below the 40. The lode in the 40, driving south-east of Pressure shaft, is 15 in. wide, low price tinstuff, very similar in appearance to the lode in the 30 just as we got into the granite. I shall put a pare of men to drive this level north-west of shaft as soon as I can get a pare. The lode in the 30, south east of Pressure shaft, is 2 ft. wide, containing small strings of lead, and is being driven with all speed to the required depth for a 32 fm. level, which will be done (weather permitting) in four weeks hence. The lode in this level, driving west of shaft, is 2 ft. wide, worth 6/- per fathom. The lode in this level, driving north-west of Pressure shaft, is 2½ ft. wide, worth about 5/- per fathom. The lode in this level, driving west of shaft, is 15 in. wide, producing tin-stone. Hope lode, in this level, driving west of the caunter shaft, is 15 in. wide, producing tin-stone. The lode in the deep adit level, south-east of Vivian's shaft, is 2 ft. wide, composed principally of peach and spar, with good stones of copper ore, and saving work for tin. The stopes are just the same as for some time past. I will send you a full report in time for the committee meeting on Tuesday next.

**WEST GOGINAN.**—John Kitto, Dec. 26: I am pleased to be able to inform you that we have held the engine-shaft to the deep adit level, and in a week or 10 days at most we shall be in a position to commence sinking below, when we will push it down for a deeper level (say 12 fms.) below the present one, with all possible speed. The lode that we have been stripping down on the side of the adit level, west of cross-cut, and underneath the shaft, to make room for lode, and for continuing the sinking below, contains ore throughout, and presents the most favourable prospects of success in deeper levels. I have suspended the driving back on north part of lode from end of deep adit, and have put the men (after securing the roof of the level over their heads) to clear up and sink the winze in the wide part of the lode below the deep adit level, where there is good ore to commence with, and from which place, judging from present prospects, I expect to raise a large quantity of good paying stuff for the dressing-floors. We have done for the present with the widening of the deep adit level cross-cut, and I have put the men to drive west of same on course of lode, where I think there is a fair prospect of making some good discoveries. The masons have finished the embankment wall of the dressing-floors, and are now engaged making the passes to receive the ore stuff from the mine, and we shall shortly be in a position to commence with the dressing of same.

**WEST GWENNAP CONSOLS.**—J. Nancarrow, Jan. 2: We have cleared the stuff from the bottom of Bawden George's perpendicular shaft at the adit, also the cross-cut north, and are now westward; it will not take long to reach the west end. There is a lode standing above the adit that we think will pay for stowing, but we shall soon clear away the stuff, then break some to test its value, and inform you fully. All other work goes on as usual, but there is nothing particular to report.

**WEST JEWELL.**—Joseph Michell, Jan. 2: We continue to stope the bottom of the 57 fm. level vigorously, and everything, so far as stamping-power, tin-dressing floors, &c., is in thorough good working order, and I believe, in a very short time we shall be making good returns of tin, which will leave satisfactory profits.

**WEST STIPERSTONE.**—R. Smitham, Jan. 2: The engine-shaft is now down 38 fms., and the sinking going on as usual.

think the heaviest of this extra work is now over; and if we can keep the mine free of water, as we hope to do, the returns of tin will be considerably increased. The eastern ends are improving; we have apparently passed through the poor bar of ground at the 80 and above; these shallow backs are now in easy ground, and can open up profitable tin ground rapidly. We have a new double skip-shaft made complete to the 80, and shall soon have it deeper; this will enable us to haul the limestone cheaply, and thereby keep the stamps fully supplied. We consider the prospects very cheering, and think there is a brighter prospect for the future.

**NORTH POOL.**—The cross-cut to intersect the lode in engine-shaft has been commenced, and Messrs. Vivian and Sons anticipate meeting with the vein in a few feet—it is an important feature.

**GROGWYNION.**—A favourable report has been made upon this mine by Mr. Walter Eddy. The report (which appears in another column) is of a most favourable character. Mr. Eddy says that, "Looking at the great local advantages possessed by this mine—that it can be worked to the depth of 260 yards by adit levels, already driven, the great tract of virgin ground, both to the east and west, the ore already discovered by the new drivings, the number of lodes, and great extent of backs—I consider that you possess a valuable mineral property, that only requires a moderate capital to develop it to make it a good dividend-paying and permanent mine."

**BURROW AND BUTSON.**—This week the report from the mine (among the Mining Correspondence) is of particular interest, as showing the great extent to which these extensive mines are already opened up for the present company.

**CWM BYCHAN.**—It would appear, from the excellent report in another part of the Journal, that this mine will soon occupy a prominent position.

**OLD TREGARDOCK.**—This valuable property, which is situated on the north shore of Cornwall, and so well known for its rich silver ores, has been secured by some of the most respectable mining capitalists in London, and on the most favourable terms, the royalty being 1-17th. The mines, which are very extensive, have been thoroughly inspected by the most practical mining engineers of Cornwall and Wales. Mr. N. Ennor, of St. Teath, being one amongst the number, all of whom positively declare this property a certain success. Operations are commenced, and we look forward (now the mines will be fairly developed) in about six months hence to see larger returns of silver-lead being ready for the market. Some of the ores will yield, according to assay, upwards of 80 ozs. of silver per ton, therefore large profits will be made from the development of this property, and I wish the company every success.

**MINERAL HILL SILVER MINES COMPANY.**—The directors have been unable to meet the payment of the interest on the debenture bonds, which fell due on Wednesday, and have been obliged to take the necessary steps for placing the company in liquidation. It is evident that this step is taken with a view to protect the property, and to secure the rights of the debenture holders, to whom it in reality belongs. At the meeting of shareholders, held on Dec. 24, it was stated that the mines had been worked with profit in October and November, but that the telegrams received in the middle of December announced that they did not then yield so well as they had done, and that the grade of the ore has also fallen off. The deposits are evidently of a very ductile kind, and it is most difficult to foretell what may be the result of the explorations which are in progress, or if the yield of ore weekly will increase or diminish. Several plans for the reconstruction of the company have been suggested, so as to continue the working of the mines, and it is much to be hoped that the liquidator may be able to carry out some scheme for this purpose.

**UTAH.**—A correspondent (Dec. 13) writes—"Utah progresses with giant strides. Lead mining will become great. Utah Silver Company, under good management, will be a permanent property, like the Van. The coal mines are richer every day, and railroads are building to connect them with the lead mines in the district."

### MESSRS. JAMES HUME AND CO., 42, CORNHILL, LONDON.

The best prices given for Emma, Flagstaff, and other shares. SPECIAL BUSINESS IN—

50 Boscas. Downs, £2 1/2.	10 Emma, £15 1/2.	20 Richmond, £4 1/2.
50 Bampfylde, £2 1/2.	10 Flagstaff, £14 1/2.	10 Eberhardt, £6 1/2.
20 Bog, 32s.	50 Gold Run, 15s.	10 So. Condurrow, 29.
25 Birksieve Creek, £2 1/2.	10 Great Vor, £6 1/2.	20 Sweetland, £3 1/2.
100 Cwm Elan, 9s.	10 Hington, £8 1/2.	30 So. Rom. Grav., £2 1/2.
50 Cedar Creek, 23s.	10 Llan Clwyd, £1.	10 So. Carn Brea, £4 1/2.
20 Camp Floyd, 23s.	10 Marks Valley, £1 1/2.	20 Van Consols, £5 1s. 3d.
20 Crebior, £3 1/2.	10 Nant-y-Bickell, £5 1/2.	20 West Maria.
20 Crebior, £3 1/2.	20 Penneyre, £2 28.	10 U. Ny., £3 1/2.
50 Don Pedro, 15s.	10 W. Tankerville, £4.	20 West Chiverton, £11.
10 East Lovell, £1 1/2.	Shares bought or sold to order for cash or account.	

Telegrams have prompt attention.

### M R. R. PERCY ROBERTS, FINANCIAL AGENT, 60, ENGLISH STREET, CARLISLE

### MESSRS. CAMERON AND CO., FINANCIAL AGENTS AND SHARE BROKERS, BRIDGE STREET CHAMBERS, CHESTER.

#### LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Dec. 4—Cashwell.	59	£14 17 6	J. Walton & Co.	
23—Lisburne—Glogfawr.	30	17 0 0	Vivian and Sons.	
—	40	15 0 0	ditto	
—	ditto	14 5 6	Barry Port Company.	
—	30	15 0 0	Vivian and Sons.	
—	30	15 0 0	Peter Glover.	
Goginan.	12	19 6 0	—	
24—Pennerley.	73	15 1 0	Sims, Williams, & Co.	
28—South Darren.	20	20 13 0	ditto	
30—East Llangynog.	50	14 7 0	—	
—Caegwynion.	14	13 12 6	—	
31—Plynlimmon.	20	14 7 0	—	
—ditto.	20	14 7 0	—	
Foxdale.	73	15 10 6	—	
Jan. 1—E-gair-hir.	29 1/2	11 4 0	Weston, Son, & Co.	
2—Bwadrafn Consols.	30	14 7 0	Walker, Parker, & Co.	
3—Great Llwyd.	100	24 12 0	Neville, Drury, & Co.	
			Panther Lead Company.	

#### BLENDE.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
Dec. 30—Caegwynion.	80	£4 6 0	—	—

#### BLACK TIN.

Data.	Mines.	Tons. q. lb.	Price p. ton.	Amount.	Purchasers.
Jan. 2—Great Wheal Vor	16	5 2 22	£ —	£1335 11 2 —	—

#### COPPER ORES.

Sampled Dec. 12, and sold at Tabbs' Hotel, Redruth, Jan. 2.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Carn Brea	70	£1081 13 0	Pennance	20	£142 13 0
South Crofty	62	936 5 6	Wheat Buller	29	258 2 0
East Pool	57	4 3 6	Wh. Damself United	25	109 4 0
West Seton	51	2 4 0	Poldice	25	98 15 0
Mellnear	15	3 19 0	South Frances	15	104 8 0
Carn Camborne	7	0 2 6	Creegbrawse	9	25 17 6
South Crofty	76	4 14 6	Pengelly's Ore	6	21 18 0
ditto	75	3 8 0			
ditto	53	3 15 0			
ditto	44	2 19 6			
ditto	73	3 1 0			
ditto	55	3 6 0			
ditto	54	3 6 0			
ditto	37	2 19 6			
West Seton	54	5 12 0			
ditto	47	5 10 6			
ditto	41	5 6 0			
ditto	40	5 7 6			
ditto	38	2 25 0			
Mellnear	45	2 19 0			

#### TOTAL PRODUCE.

Carn Brea	263	£1081 13 0	Pennance	20	£142 13 0
South Crofty	248	936 5 6	Wheat Buller	29	258 2 0
East Pool	224	746 12 6	Wh. Damself United	25	109 4 0
West Seton	230	1366 4 0	Poldice	25	98 15 0
Mellnear	206	105 17 0	South Frances	15	104 8 0
Carn Camborne	100	328 6 0	Creegbrawse	9	25 17 6
South Carn Brea	60	519 0 0	Pengelly's Ore	6	21 18 0
New Rosewarne	50	491 5 0			

Average standard £115 6 0 | Average produce ..... 8%

Average price per ton ..... £4 16 0

Quantity of ore ..... 1510 | Quantity of fine copper 98 tons 17 cwt.

Amount of money ..... £7246 0 0

LAST SALE.—Average standard £109 9 0 | Average produce ..... 8%

Standard of corresponding sale last month, £106 5 0—Produce, 6%.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Name.	Tons.	Amount.
Vivian and Sons	216	£1084 5 0
P. Grenfell and Sons	6	21 18 0
Sims, Williams, and Co.	245 1/2	780 7 6
Williams, Foster, and Co.	207 1/2	230 15 6
Mason and Elkington	294 1/2	1137 4 0
Copper Miners' Company	219 1/2	775 15 0
Sweetland, Tuttle, and Co.	221	1245 14 0

Total ..... 1510 ..... £7246 0 0

NO SALE on the 9th or 16th of January.

\* \* \* With this week's Journal an enlarged SUPPLEMENTAL SHEET is given, which contains Mr. Warlington Smythe's Lectures on Mineralogy at the Government School of Mines—Mines and Works of Germany, No. VIII.—Ironworks and Collieries in Yorkshire—Progress of Mining Industry in 1872—Scotch Iron Trade, 1872—Coal Trade, 1872—Our Prosperity—Foreign Mining and Metallurgy—Foreign Mines Reports—Patent Matters, &c.—Original Correspondence: Coal Mines Regulation Act, 1872 (J. W. Hall); Colliery Explosions—British Slavery; How Deep Can we Mine; Mineral Rights in the Forest of Dean; Mechanical Puddling; Mining in Colorado (J. Johns, H. B. Gross); Boring by Machinery—the Diamond Drill (F. Beaumont); Water-Power; N. Ennor on Tin Stamping, Dressing, &c., No. III.; the Red River (N. Ennor); Review of Mining for 1872, No. III. (R. Tredeuick); Central Van Lead Mine; Furze Hill Tin Mine, London Financial Company; An Antiquarian Puzzled (R. Symons); Brazilian Mining Companies, &c.

day, which takes place next Thursday in Birmingham. The leading Staffordshire houses have generally declared against further commitments, except under special arrangement in respect to price and time of delivery. The North Staffordshire ironmasters held their quarterly meeting this week at Stoke-upon-Trent, which passed off satisfactorily. It appeared to be the opinion at this meeting that the present price of coal and labour leaves very little profit for the investors. No advance in price, however, was declared. It was stated that orders for forward delivery were more plentiful.

The strike of the colliers in South Wales is a subject for grave consideration, and one which most materially changes the future prospects of the trade. Up to this (Friday) evening we have no intelligence of the settlement of the dispute between masters and men. A month since the masters gave notice to reduce the wages of colliers and ironworkers 10 per cent., alleging the falling off in the demand, together with the reduced price of iron, as the cause of such notices. Matters remained thus until Wednesday last, when a meeting was held at the Royal Hotel, Cardiff, of most of the great Welsh masters, and a deputation comprised of 30 working men as delegates of the 70,000 workmen involved in the momentous question, which this notice has now brought to a direct issue. Mr. Fothergill, M.P., of the Aberdare and Plymouth Works, took the chair. Mr. Menelau, of the Dowlais Works; Mr. Crawshay, of the Cyfarthfa Works; Mr. Abraham Darley, of Ebbw Vale; Mr. Leybourne, of Rhymney; Mr. Brown, of Tredegar; Mr. Richardson, of Nant-y-Glo; Mr. Martin, of Cwmavon, and other masters attended. Mr. Fothergill spoke for the masters in a very kindly spirit, laying the position of the trade fairly before the men. Mr. Menelau and Mr. Abraham Darley likewise took part in the discussion on behalf of the masters. Mr. Job and Mr. Price addressed the meeting as delegates for the men. The masters in effect stated that they were losing money, and could not go on with the present price of coal without the men consented to a reduction of wages.

The delegates thought arbitration should be resorted to, the masters, in face of the unsatisfactory results

take the position they are entitled to upon the reports of Professor Clayton and Mr. Murphy. The details of the meeting are reported in another column. Camp Floyd, 2½ to 2¾; the resident secretary writes under date of Nov. 9, that "incline No. 1 is looking very well at the bottom, and I think we shall shortly find a body of good ore therein. Shaft No. 3 appears to be improving a little I believe." No other change to report.

Richmond Consolidated shares continue in demand at 4½ to 4¾. Eberhardt and Aurora shares remain without any quotable change, closing 6½ to 6¾; the official announcement has been made of the completion of the contract with the South Aurora Company for crushing 6000 tons of ore at the Stamford Mill at the price (as already stated) of \$13½ per ton. Capt. Francis Drake (a director, who was one of the party that formerly owned and worked most of the mines on Treasure Hill), accompanied by Mr. Pearless (also a director) has left for the mines; and if, after examination, it should be thought the works might be better or more economically conducted, Capt. Drake will assume the management, or at least the supervision of the entire property. The damage occasioned to the International Mill by the fire has been assessed by the appraisers at \$97,000, and the aggregate amount due upon the original policies of insurance amounted to \$64,870, which has been nearly all collected. South Aurora, 4 to 1; Pacific, 1 to 1½; the late change of management, which was made by telegraph, has caused a delay in receipt of letters from the mine, no news having been received for the last few weeks. Upon enquiry we find that the directors expect to resume the usual weekly reports in our next impression.

In Brazilian Mines the only change to notice is the advance in St. John del Rey shares, which close at 24 to 26; the general work on its present limited scale is progressing steadily. Good progress continues to be made in sinking the vertical shafts.

In Hydraulic Mining there has been a fair amount of business. Telegrams from the Pacific Coast announce the setting in of the rainy season, so that all the different companies represented here can now resume their usual washing operations. Cedar Creek, 3½ to 3¾; the agent telegraphs this week—"Prospects encouraging; water season commences favourably; every claim running." The shareholders may, therefore, soon expect news of a clean-up. Birdseye Creek, 2½ to 2¾; the Neece and West tunnel is in 633 ft., and is progressing as fast as the nature of the ground will admit. The superintendent has everything ready in the different claims for washing, and reports that all things are looking favourable. Sweetland, 3½ to 4; the new tunnel is in 2190 ft., leaving about 100 ft. yet to drive: 500 ft. of sluice in same was completed, and all work progressing in a satisfactory manner.

Malpaso, 1½ to 1¾; a good business has been done in these shares, consequent upon the satisfactory advices received from the company's mines (which appear in another column). It seems that as the washings advance through the old Spanish debris, a good stratum of gravel is underlying the washings of the ancients, from which about \$2000 in gold has already been obtained. The present works are, however, entirely below the very rich gravel from which the Spaniards obtained all their gold, and which cannot be encountered until the washings reach the main bank of gravel, towards which point the superintendent is pushing on as fast as possible. The returns are now about meeting the cost, and will doubtless increase as progress is made. Rica, ½ to ¾; the advices from the mines show that the works are being pushed rapidly forward. Aruba Gold, 10½ to 11.

Holcombe Valley, ½ to 4 prem.; the agent telegraphed that on the 31st he was leaving Los Angeles with winter supplies for the mine; the company are, therefore, expecting regular advices now, as work will be commenced immediately on his arrival.

In Lead Mines a considerable amount of activity has prevailed. Van, 37½ to 40; the directors have this week declared the usual quarterly dividend, but have increased the amount to 15s. per share. This company has paid in the year 42,750/- in dividends, upon a capital of 63,750/-, or at the rate of over 67 per cent. The mine is reported as looking as well as ever. East Van, 4½ to 5. Van Consols, 5 to 5½; the 25, which is something like 160 fms. in advance of the ore discovered in the 60, shows signs of an important discovery; a few fine days only are required to enable the dressing-floors to be completed. Roman Gravels, 19 to 20; the dividend for the quarter ending Dec. 31, of 6s. per share, has been declared. South Roman Gravels have been in demand, changing hands at 2½ to 2¾. Tankerville, 14 to 14½; the lode in bottom of the shaft is worth 230/- per fathom. West Tankervilles have also met with increased enquiry, at 3½ to 4; considerable importance is being attached to the encouraging manner in which this mine continues to open out; operations have been commenced on the two counter lodes in the 6, 20, 40, and 50 fm. levels under adit, driven up from Roman Gravels; the lode at California shaft remains worth fully 4 tons per fathom. Pennerley, 2 to 2½; the price of these shares has declined considerably during the past week, but we are unable to discover the cause of the fall. The company have been making profits at the rate of about 200/- per month for the last few months. The severe weather of late has certainly hindered the development of the mine, as it prevents the ground being laid open so far as should be the case.

In Tin Mines a large amount of business has been transacted, and in almost every instance an important advance has been established. East Lovell shares have been in exceptional request, and close firm at 18½ to 19; the lode in the skiproad-shaft continues of the value of 150/- per fathom, and moderate stamping work is being obtained from the new portion of the mine. New Lovell shares have also advanced to 1½, 2, upon an important improvement.

In Copper Mines the shares in Cape Copper have been dealt in at 29 to 30 ex div.; San Pedro 4½ to 5.

Subjoined are the closing quotations:—  
Alamillos, ½ to 2; Almada and Trito, ½ to 1; Anglo-Argentine, ½ to ½; ditto, 15 per cent. pref., ½ to ½; Anglo-Brazilian Gold, ½ to ½; Australian, ½ to ½; Australian United Gold, ½ to ½; Cape Copper, 20 to 22 prem., ex div.; Chontales Consolidated, ½ to ½; ditto, 17½, paid, ½ to ½; Colorado Terrible, ½ to ½; Copiapo, 2 to 3; Don Pedro, ½ to ½; ditto, ½ to ½; Eberhardt, ½ to ½; Esmeralda, ½ to ½; Fortune, 4½ to 5; Flagstaff, 14½ to 15½, ex div.; Froncino and Bolivia, ½ to ½; General Mining Association, 6 to 8; General Brazilian, 3½ to 5½; Kapunda, ½ to ½; Linares, 2 to 3; London and Californian, 1 to 1½; Lusatian, 2½ to 3½; Pacific, 1 to 1½; Panuelillo, ½ to 4; Pestarena, ½ to ½; Pontigbaud, 18 to 20; Port Phillip, ½ to ½; Richmond Consolidated, ½ to ½; Ross Grande, ½ to ½; ditto, 17½, paid, ½ to ½; Russel, ½ to ½; Scottish Australian, 1 to 1½; St. John Rey, 24 to 26; Sierra Buttes, 3 to 3½; Sweetland Creek, 3½ to 4½; United Mexican, ½ to ½; Utah, ½ to 2; Vancouver Coal, 1 to 2 prem.; Yorke Peninsula, ½ to ½; Yudanamutana, ½ to ½.

The CADIZ WATERWORKS COMPANY are inviting subscriptions for 755 TEN PER CENT. PREFERENCE SHARES of 10/- each; and as this class of share usually commands a high premium the Berlin Waterworks standing at 100 per cent. premium, and many almost equally high, full confidence is felt in the security. The greater part of the water used in Cadiz is procured from the springs of La Piedad, being brought by rail and by sea from Puerto Santa Maria in large barrels containing 550 litres each. This water is sold to the water-carriers at an average rate of about 15 frs. per cubic metre, and retailed by them at an average rate of about 30 frs. per cubic metre, equal to 13½ per gallon. The Chairman personally visited the works in the month of September last, and his report, addressed to the board of directors, fully bears out the high expectations entertained of the favourable prospects of the company. The net annual revenue is estimated at 49,420/. This calculation is based on less than half the average consumption of water. All surplus revenue (after paying 10 per cent. interest on the ordinary shares) will be divided pro rata between the preference and ordinary shares; and if the estimate of income be made upon the basis of the ordinary average consumption of London, Paris, or Madrid, and other large towns, the estimated surplus revenue will be increased more than threefold. The prospectus will be found in another column.

The GREAT CONISTON COPPER MINING COMPANY, with a capital of 30,000/-, in shares of 5/- each, has been formed to purchase for the sum of 6000/- the well-known copper mine of the same name, situated at Greenburn, North Lancashire. The sett is very extensive, embracing an area of three square miles, and has five known lodes of great promise. Most of the necessary machinery and plant have already been erected, and it is considered that a very small outlay will place the concern in excellent working order. The ores generally of the district have been proved to contain a much larger percentage of copper than the mines of Cornwall, and the analyses of Drs. Thorpe and Wallace, of Glasgow, show the Great Coniston ore to contain a remarkably large percentage of copper, even for that district. The reports of Mr. Mortimer Evans, M.E., of Glasgow, Captain W. Jeffery, and others who have inspected the property, are favourable, and the promoters believe that as soon as the mine is fairly opened up large and constant dividends may be safely relied upon. The property has also been inspected by Mr.

Wm. Penny, of Ashton-under-Lyne, who writes that he has gone over every foot of ground, and likes it better than any sett he has ever seen on the market. It will never require any coal for working it as there is plenty of water forever. It is estimated that 8000/-, or 4/- per share, will suffice to test the five lodes, and for 15 months' working.

The PRIDEAUX WOOD TIN MINING COMPANY has been formed, with a capital of 10,000/-, in shares of 5/- each, to purchase and work the mine of the same name, contiguous to Fowey Consols, and with parallel lodes. Sufficient water is available for drawing, pumping, and stamping the ore. The average yield of the mine is stated to be near 40 lbs. per ton; while it is well known by the advantages now at hand that half that quantity will pay handsome profits at a price of 60/- per ton of black tin, this being 25 per cent. below the present price. It is estimated that an outlay of 4000/- on machinery, &c., will enable the company to return 8 tons of tin per month at one-half profit. The necessary machinery, including two iron wheel-wells, have been purchased under favourable circumstances. The prospectus will be found in another column.

At Redruth Ticketing, on Thursday, 1510 tons of copper ore were sold, realising 7247/- The particulars of the sale were—Average standard, 115½ lbs.; average produce, 6½; average price per ton, 4½ lbs.; quantity of fine copper, 98 tons 17 cwts. The following are the particulars of the sales:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.	
Dec. 5...	2105	5 0	6½	2 0	12s.	1d.	63 7 0
" 19...	3416	10 9	6½	4 8	0	13 6	67 9 0
Jan. 2...	1510	11 6	6½	4 16	0	14 8	73 6 0

Compared with the last sale, the advance has been in the standard 6½, and in the price per ton of ore about 8s.

**TIN TRADE.**—The Standards of Tin Ores were advanced on Wednesday, and are now as follows—Common, 13½s.; superior common, 13½s.; fine, 13½s.; superior fine, 13½s.

It is announced that the meeting of Honduras bondholders, to be held on Monday, is postponed, in consequence of the illness of Capt. Bedford Pim, who is temporarily prostrated by the unjustifiable treatment he received in Paris, as referred to in his circular, but he trusts to hold the meeting in a few days, and will duly notify the same to the bondholders.

Messrs. Bischoffsheim and Goldschmidt announce that a dividend of 22s. per share (being at the rate of 11 per cent. per annum for the six months ending Dec. 31) on the first issue of share capital of the United States Rolling Stock Company; also that the dividend on the second issue will be at the rate of 11 per cent. per annum, calculated on the amount of the instalments actually paid from Nov. 19 to Dec. 31, 1872, and will be paid at their counting-house on and after the 16th inst.

Messrs. Sims, Wiliams, Neville, Druce, and Co. have issued a circular, that from Jan. 1, 1873, their business will be conducted under the style of—

For particulars, apply to—  
W.M. SLATER AND CO., 6a, Bishopsgate Without, London.

**WANTED,** a THOROUGHLY COMPETENT PERSON TO SUPERINTEND THE ERECTION OF HEATING STOVES and LINING of a BLAST FURNACE, at SALTBURY, near CHESTER.  
Apply to "E. W." at Mr. Tonge's, 24, Great Smith-street, Westminster, stating terms and experience.

**TO UNDERVIEWERS.**

**WANTED,** at a LARGE COLLIERY in LANCASHIRE an EXPERIENCED UNDERVIEWER. He must thoroughly understand the working and ventilating of mines, both by Pillar and Stall and Long Wall. He will be required to be registered as the Certified Manager, and act under the directions of a Mining Engineer residing at the Colliery.

None but experienced persons need apply.

Applications, stating age, previous experience, salary expected, and enclosing testimonials, to be sent to Mr. W. J. L. ATKINS, Pemberton Collieries, Wigan.

**CALDBECK FELLS CONSOLIDATED LEAD AND COPPER MINING COMPANY (LIMITED).**

**WANTED**, for the above Mine, a thorough experienced PITMAN and SIX able SHAFTMEN. Must be Cornish or Devonshire Miners. Liberal wages allowed.

Calbeck, Cumberland, December 16, 1872.

**WANTED** by a practical Cornish Mine Agent, who has had four years' experience in the Silver and Gold Mines of Nevada, and is thoroughly acquainted with the Assaying and Dressing of Metals, Dialling and Mapping of Mines, a PERMANENT SITUATION OR EMPLOYMENT AS INSPECTOR OF MINES. Highest references given.

Address, Mr. ALFRED THOMAS, Bodriggy, Hayle, Cornwall; or at 47, Threadneedle-street, London, E.C.

A MINING AGENT, lately returned to England, after visiting

and reporting on some of the most important silver mines in existence, is desirous of OBTAINING EMPLOYMENT either as above, or to TAKE CHARGE OF MINES. Highest references given.

Address to "F. F.", Post Office, Scorrier, Cornwall.

TO MEMBERS OF THE STOCK EXCHANGE, STOCKBROKERS, &c.

A WELL EDUCATED AND CONNECTED YOUNG GENTLEMAN, aged 23, of business habits, is desirous of OBTAINING A CLERKSHIP OR POSITION OF TRUST; in London preferred. Good references can be given, and if necessary security.

Address, in the first instance, "J. W.," Post Office, Porchester, Hants.

**THE VAN MINING COMPANY (LIMITED).**

14a, Austinfrid, London, E.C., 31st December, 1872.

Notice is hereby given, that the directors have THIS DAY DECLARED a QUARTERLY DIVIDEND OF FIFTEEN SHILLINGS PER SHARE (£11,250/- free of income tax, PAYABLE on and after the 21st January next.

The Transfer Books will be closed on the 16th to the 21st of January, both days inclusive.

By Order, W. J. LAVINGTON, Secretary.

**THE ROMAN GRAVELS MINING COMPANY (LIMITED).**

20, St. Helen's-place, Bishopsgate, London, E.C., 2nd January, 1873.

Notice is hereby given, that the directors have THIS DAY DECLARED a DIVIDEND OF £3600 (free of income tax), being SIX SHILLINGS PER SHARE for the quarter ending 31st December, 1872, and SIXTEEN PER CENT. PER ANNUM upon the capital of the company, PAYABLE on and after the 23rd instant.

The Transfer Books will be closed from the 13th to the 23rd instant, both days inclusive.

By Order, F. R. WILSON, Secretary.

**THE WHITEHAVEN IRON MINES (LIMITED).**

CAPT. JOSEPH HODGE, having been engaged at Floutern Tarn four months,

will forward a REPORT OF PRESENT AND FUTURE PROSPECTS to any bona fide shareholder.

28, Frankfort-street, Plymouth, January 1, 1873.

**FOR THE UTAH MINES.**

PERSONS WISHING ACCURATE INFORMATION concerning the MINES and MINING DISTRICTS in UTAH should BUY FROISETH'S NEW MINING OR SECTIONAL MAP OF UTAH, for sale by THUBNER and Co., 60, Paternoster-row, London, E.C.

**MESSRS. LISCOMBE AND CO.,**  
39, SOUTH CASTLE STREET, LIVERPOOL.

Beg to inform their CLIENTS and the PUBLIC that they are PREPARED TO DO BUSINESS IN ALL CLASSES OF MINING SHARES—English, Foreign, and Colonial—at the closest market prices.

**COMPENSATION CLAIMS ADJUSTED, BOOKS AND ACCOUNTS KEPT IN ORDER, PERIODICAL STATEMENTS OR BALANCE SHEETS PREPARED, and COMPETENT CLERKS PROVIDED TO WORK UP ARREARS, or render TEMPORARY ASSISTANCE, at moderate charges; also, DEBTS and RENTS COLLECTED, with promptitude and dispatch, by—**

R. M. RING AND CO., ACCOUNTANTS AND FINANCIERS,  
38, BUCKLERSBURY, CITY, E.C.

**MESSRS. THOMAS BORLAZ AND CO.,**  
MINERAL, ENGINEERING, FINANCIAL, AND GENERAL AGENTS,

Respectfully announce their readiness to INSPECT, VALUE, REPORT, and ADVISE, confidently, INVESTORS ON any matter in the above capacities. Unquestionable references and securities offered where required.

OFFICES.—ST. AUSTELL, CORNWALL.

**M. CHARLES F. COLLOM,**  
MINING ENGINEER, INSPECTOR OF MINES, &c.

TAVISTOCK.

MANAGEMENT OF THE SOUTH DEVON FIRE-CLAY COMPANY.

Patentee of COLLOM'S PATENT REVOLVING FRAME for DRESSING TIN, AMALGAMATING GOLD, &c.

INVESTMENTS IN MINES ARRANGED FOR CAPITALISTS.

## ZINC AND LEAD ORES.

I BUY at the HIGHEST PRICES.—

BLENDE.—CALCINED and RAW CALAMINE (carbonate or silicate).

LEAD ORES.—LEAD-SILVER ORES.—SILVER-LEAD ORES.

ZINC AND LEAD ORES MIXED TOGETHER.

SILVER-LEAD, BULLION, HARD LEAD, &c.

SULPHATE OF LEAD, ASHES, SLAGS, &c.

I BUY any quantities, however large, contracting for as many years as desired Particulars by letter.

I now BUY also IRON ORES, particularly those containing MANGANESE, and am ready to consider proposals for import and periodical supplies.

ARMAND FALLIZE, Ingénieur, à Liège (Belgium).

## TENDERS WANTED FOR NORWAY STONES.

THESE STONES are USED for SHARPENING OF AGRICULTURAL IMPLEMENTS, MACHINES, &c., and are risen

from the well-known quarry, EIDSBOORG, UPPER THELEMARKEN, NORWAY.

These stones will be delivered, carriage paid, in London or Hull, either rough, as they come from the mountain, or refined.

Tenders are requested to apply, to T. O. AASLAND and Co., M3 Upper Thelmarken, Norway, stating price given, and quantity required o

the refined or rough stones.

A sample will be delivered, carriage paid, to London or Hull, by applying to

## Notices to Correspondents.

\*\* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt: it then forms an accumulating useful work of reference.

**SAW-DUST MINING POWDER.**—The Champion saw-dust mining powder which I see advertised in the Journal appears (from the description that it is smokeless, not spoiled by damp, and from three to ten times stronger than the best black powder, according as it is fired by a fuse or by detonation) exactly suited to the requirements of mines, yet I have seen no details concerning its manufacture and constituents published. If you would print them in the Journal it would be advantageous to ONE AND ALL.

**PRESSURE OF AIR.**—Can any correspondent inform me how much power would be required to supply an end 250 fms. from the shaft with sufficient air for four men; what sized pipe would be required; and whether it would be most effective to draw the air out or force it in? The object of my question is to ascertain the greatest distance at which shafts can economically be placed from each other. The depth of the end from surface is 105 fms.—**EQUIER.**

**URANIUM.—PITCH BLENDÉ.**—I should be glad to know, through the medium of the Journal, if there is any sale in England for uranium (pitch blendé) who the buyers are, and the price per lb., or per 100 lbs. delivered at Liverpool?—**H. B. G., Central City, Colorado, Dec. 11.**

**TIMBERING MINES.**—“Amateur” (Thurles).—We know of no work specially devoted to this subject. A few sketches such as you require will be found in Phillips’s “Metallurgy,” and you would probably get all the information you require from such books as Creasy’s “Cyclopedia of Civil Engineering.” It would be difficult to design one system applicable to all cases, as the forces to stand against would constantly vary. Perhaps some other correspondent would refer to a suitable book.

**HORSE-POWER OF STEAM-ENGINES.**—“F. C.” (Penrith).—It does not at all follow that because the engine at present in use has been working up to 200-horse power (indicated) that it is necessary to replace by a 200 horse power engine. There is no rule for calculating the proportion which the nominal horse-power bears to the indicated. Most good 40-horse engines could be worked up to 100-horse power indicated if required, and one of that size was described in the Supplement to last week’s Journal—that of Messrs. Robey and Co.—which is considered capable of working up to 200 indicated horse-power.

**MINEFAL HILL.**—With regard to the position and prospects of the company, it should have been stated in the abstract of the directors’ report, printed in last week’s Mining Journal, that “in view of the fluctuations in the returns from the mine which had occurred during the past six months, the present unfavourable appearance should not extinguish the hope of further returns of bullion.” It was Mr. Hamilton who seconded the resolution for winding-up, and proposed the appointment of Mr. Turquand as liquidator.

**IRON WITH SILICA.**—A set in which I am interested yields iron ore which has but few other impurities than silica, but the silica is in such large proportions as to make it comparatively unmarketable. Can any of your correspondents describe a cheap and effective way of separating the silica, or any mode of smelting by which the iron could be cheaply extracted. I believe at a recent meeting of the Iron and Steel Institute, reported in the Mining Journal, Mr. E. Reilly stated that he had succeeded in making good castings from iron containing a very large percentage of silicon, but I have not seen it mentioned how he prevented the gobbling up of the furnace. It has been proposed with the ore to which I allude to use salt as a remedy, but I fear the expense would be too great to make this commercially remunerative.—**P. M.**

**HUSBAND’S PATENT STAMPS.**—“F. W. T.” (King’s Arms-yard).—We presume it is Husband’s stamps to which you allude, not remembering any crushing machine having been invented by him. Every information can be obtained by applying to Messrs. Harvey, of Hayle, Cornwall; and Nine Elms, London.

**COPPER SMELTING.**—“W. M.” (Gloucester).—Your enquiry cannot be answered upon the data given. The cost of furnace and works for getting out 10 tons of pure copper per day would depend upon where the works are situated, and the facilities for obtaining materials, labour, &c. The details of the locality, description of ore, &c., should be sent to an engineer accustomed to the erection of furnaces, who will furnish estimate in return for a suitable fee. It would be useless to make preparations for smelting ore of 55.44 per cent. produce; such ore is never obtained for smelting, and no reliance whatever should be placed in any assay or analysis which states that the ore is of that richness: about 9 to 15 per cent. is the best produce to prepare for. The higher produces are obtained thus:—An ore is given to either an analyst or assayer to analyse for copper. From this ore speaks of red oxide, carbonate, grey sulphide, or purple copper, as the case may be, are picked out, and when the expert’s mineralogical knowledge is insufficient to enable him to determine which salt of copper he has, he sometimes uses a reagent or two to assist him, and then gives the report 88.75, 55.16, 79.79, or 55.54 per cent., or something near them. We have seen many ores which would never yield ore for the ticketing of 9 per cent. produce reported over 40 per cent. of pure copper, and when capital is raised upon such statements for working them disappointment and annoyance are inevitable. The Cape Copper Company’s ores, about the richest sold, do not reach 35 per cent.

**Receipted.**—“Enquirer” (Trotton)—“G.”—“D. V. A.”—“T. J. B.”—“Miner” (New York)—“H. B.”—“Mentor”—“J. B.” (Bow): The Map of the Camp Floyd district was given, with the paper from which the article was copied.—“M. A.”—“Constant Reader” (Liege)—“Nemo”—“A Civil Engineer”—“R. S.”—“Another Observer”—“John Bull” (next week)—“Enquirer”—“N. T.”

THE MINING JOURNAL,  
Railway and Commercial Gazette.

LONDON, JANUARY 4, 1873.

## GOVERNMENT INSPECTION OF MINES.

The new Acts of Parliament, which came into operation on Wednesday, for the regulation of Collieries and Metalliferous Mines should receive the immediate attention of all concerned, since the enactments are very stringent, and the penalties for non-compliance severe. The provisions of the two Acts were made to correspond with each other as nearly as the different circumstances to be provided for would permit.

No boy under 12 years old, and no female of any age, must be employed underground. The SECRETARY OF STATE may, however, under exceptional circumstances, authorise the employment of boys between 10 and 12 in thin seam coal mines.

No boy under 16 years old must be employed underground for more than 54 hours in any one week, or more than 10 hours in one day. The period of employment begins when he leaves the surface, and ends when he reaches it again.

The driver of a whim horse must not be under 12, and no person under 18 must have charge of an engine if persons be taken up, down, or along the shaft, place, or level for which it is used.

A register must be kept at every mine showing the name, age, residence, and date of first employment underground of all persons under 16; and of all women, girls, and children under 13 employed above ground. No person must take a boy into a mine without previously reporting him to the owner or agent.

Wages must not be paid in any public-house or other house of entertainment, or garden belonging to or occupied therewith.

The provisions as to the appointment of certified managers for coal mines have been already fully referred to.

On or before August 1 in every year the owner or agent of every mine must furnish the SECRETARY OF STATE with a return made up to the previous Dec. 31, showing the quantity of mineral sold or raised, and the number of persons ordinarily employed below ground, and above ground, with the ages and occupations of all whose hours of labour are regulated by the Acts.

Notice of accidents in mines, whether below ground or above ground, must be sent within 24 hours to the Inspector, or to the SECRETARY OF STATE, when loss of life or any personal injury happens to any person employed by reason of any explosion of gas, powder, or of any steam-boiler; or when loss of life or serious personal injury happens to any person through any accident whatever. If the injury subsequently results in death a second notice must be sent.

Notice of the opening and abandonment of a mine, or of change of name or ownership, must be given within two months to the Inspector or SECRETARY OF STATE; but this need not be done when the number of persons ordinarily employed is less than 12; and in case of cost-book mines in the Stannaries the change of ownership need not be given provided the change of pursership be notified.

Mines not at work must have all shafts and side entrances fenced, and the owner and every other person interested in the minerals are responsible for neglect. The owner is liable to other persons interested in the minerals for expense of fencing, unless there be a contract to the contrary. Where the mine has not been at work since the passing of the Act the section only applies to shafts and entrances within 50 yards of any road, footpath, or place of public resort, or in open land; or, not being so situated, is required by an Inspector (in writing) to be fenced, on the ground that it is specially dangerous. Any shaft or side entrance not fenced is deemed to be a nuisance within the Nuisances Removal and Sanitary Acts.

When a mine employing more than 12 men is abandoned an accurate plan, on a scale of 2 chains to an inch at least, showing the

boundaries of the workings of such mine up to the time of the abandonment, must be deposited.

Dangerous or defective matters not provided for by the Act may be ordered to be removed by the Inspector upon notice being given. The section overrules all agreements opposed to it.

Plans of all mines must be kept up to within six months of date, and if the Inspector requests it the subsequent workings up to date of inspection must be marked thereon. The Inspector must report annually to the SECRETARY OF STATE, and make special reports to him when directed to do so. Inquests must be adjourned for at least four days (unless an Inspector be present), in order to give the Inspector, to whom notice must be given, an opportunity to attend.

The General Rules applicable to collieries have already been explained. The General Rules applicable to metalliferous mines are 19 in number, the most important being those referring to ventilation and the use of gunpowder, but there are heavy penalties for infringing any of them.

An adequate amount of ventilation must be constantly produced in every mine to such an extent that the shafts, winzes, sumps, levels, underground stables, and working places of such mine, and the travelling roads to or from such working places shall be in a fit state for working and passing therein.

Gunpowder, or substitutes for it, must only be used underground upon the conditions—that it is not stored in the mine; that it be not taken into the mine, except in a canister containing not more than 4 lbs.; that no workman have more than one such canister in use at one time; that no iron nor steel pricker be permitted underground; that no iron nor steel tamping-rod or stemmer be used; and that no charge of powder which has missed fire shall be unrammed.

Neglect of any of the provisions constitute an offence against the Act, and involve imprisonment, with or without hard labour, when the neglect endangers life or limb, and pecuniary penalties under other circumstances. By the new principle of law which the Act introduces the owner and agent are deemed guilty of every offence against the Act committed “by any person whosoever,” until they prove that they have done all in their power to prevent it.

## THE IRON AND COAL TRADES.

The year just numbered with the past has been the most successful and profitable to those engaged in the production of coal and iron yet recorded. In the manufacture of pig there has been a very large increase, whilst prices have been nearly double what they were in the early part of last year. The Cleveland district takes the lead, so far as regards the output, which was nearly one-fourth of all that was made in the kingdom, South Wales standing next, although in 1871 it produced rather more than the former. The total make in 1871 was—England, 4,379,370 tons; Wales, 1,087,809 tons; and Scotland, 1,160,000 tons; making a total of 6,627,179 tons, valued at £16,607,947, or averaging about 52s. per ton. Good profits were made at that price, but they sink into insignificance when compared with those of last year. Assuming, then, that the quantity made in 1872 at 8,500,000—and we are inside the mark—and the prices at 100s. per ton, there would be a difference in the prices realised amounting to 20,320,000/- over those of 1871. But taking the price at 7s., there is even then a grand margin of profit; but, of course, it must not be forgotten that wages and material of every description advanced along with the price of iron and coal. With regard to iron-stone, the output has been much larger than ever it was before. In 1871 there was raised in all parts of the kingdom 16,559,063 tons, valued at £7,670,500. Last year the yield will probably be upwards of 19,000,000 tons, worth £14,000,000. Cleveland in 1871 produced 4,581,900 tons; Scotland, 3,000,000 tons; and Staffordshire, 2,100,000 tons. The latter will probably show a falling off for the year, but in all other districts there will be an increase, whilst large imports have been made from Spain and Ireland. The Coal Trade has been greatly benefitted by the prosperity which has attended those engaged in the production of every description of iron, and to that cause may be attributed, in a great measure, the greatly increased demand and the high prices paid for every kind of fuel.

Although much has been said with regard to the short hours worked by the colliers in nearly all parts of the kingdom owing to the high wages they received, yet there is little doubt but the tonnage raised in 1872 will show a marked increase over that of 1871. In the latter year the output was 117,352,928 tons, the estimated value being 35,205,608/-, and we may fairly assume the yield of 1872 at fully 120,000,000 tons. It is, however, not so easy to estimate the amount received for it, for whilst in the first quarter of the year the advance would not be more than from 1s. 6d. to 2s. per ton, yet as the year progressed prices rapidly went up. It is, therefore, being far within the mark when we say that the advantages to the colliery owner during the second half of 1872 was at least 15,000,000/- as compared with the same period of 1871, and which assumes the difference in price at only 5s. per ton. This, of course, is not taking into consideration the advance in colliers’ wages and colliery requirements. Still, in many instances, the price of coal has been doubled; for whilst in January, 1871, contracts for steam coal in South Yorkshire were taken at 7s. 10d. per ton, in January, 1872, the price was fixed at 16s., and that for short periods only. These facts will speak for themselves as to the exceptionally prosperous state of the iron and coal trades during the year 1872, and the good time it has been for masters and workmen.

## ENGLISH AND BELGIAN IRON.

Some official Belgian statistics, published rather late in the day—but none the less sure and reliable on that score—enable us to judge the relative importance of the external demand for Belgian and English iron. It appears that to Sept. 30 last year, the aggregate exports of iron from Belgium amounted to 221,000 tons, as compared with 185,000 tons in the corresponding period of 1871. In the first nine months of last year the exports of iron of all kinds from Great Britain amounted to 2,570,000 tons, as compared with 2,355,000 tons in the corresponding period of 1871. While the increase observable in the exports of Belgian iron in the first nine months of last year was thus 36,000 tons, the progress realised in the exports of British iron was 215,000 tons, or very nearly as much as the whole exports of Belgian iron. The British statistics approximate very closely to the actual exports, but it is right, perhaps, to remark that the totals given include 9,000 tons of manufactures of steel, or steel and iron combined. Subject to this reservation, it will be seen that the preponderance of British iron over Belgian in the British colonies and in foreign countries is not only enormous, but that during the last few months it has largely increased. Thus the exports of Belgian and British iron during the first nine months of the last two years compare as follows:—

## Exports of British and Belgian Iron to September 30, 1871.

British .....	Tons 2,355,000
Belgian .....	185,000
Excess of British .....	2,170,000

## Exports of British and Belgian Iron to September 30, 1872.

British .....	Tons 2,570,000
Belgian .....	221,000
Excess of British .....	2,349,000

The predominance of British iron over Belgian in external markets was thus increased last year to the extent of 179,000 tons. Even upon the French market we seem to hold our own against Belgian iron, since while Belgium sent 20,000 tons more of its iron to the French in the first nine months of last year, our exports in the same direction increased to the extent of 23,195 tons. Considering that the French and the Belgians speak the same language, and that they have many bonds of affinity and union, it is somewhat remarkable that we should do as well as we do with our iron among the French; at the same time, it is chiefly pig-iron that we sell to the French. In Spain the Belgians prove more formidable competitors, and it is noticeable that the increase in the exports of Belgian iron to Spain in the first nine months of last year was 5,000 tons. At the same time we also increased our exports of railway iron to Spain to the extent of 220 tons to Sept. 30 last year; while our exports of hoops,

sheets, and plates in the same direction increased in the same period to the extent of 100 tons; and our exports of cast, wrought, and manufactured iron to the extent of 1,736 tons. Still Belgian iron has, undoubtedly, acquired an excellent footing—if we may use such an expression—in Spain; possibly Belgian ironmasters are disposed to regard with a more indulgent eye than their English *confrères* the struggles and difficulties of the Spanish railway interest. In Russia, Belgian iron appears to have lost ground, the exports thither in the first nine months of last year having decreased to the extent of 10,000 tons. Our own iron exports to Russia seem also to have decreased in the same period by some 2,000 tons, although this decrease will probably disappear when the returns for the whole of last year are made up, as we have been sending considerable quantities of rails of late to the Empire of the Czars. But it is clear that the Russians are making great, and not altogether unsuccessful, efforts to develop metallurgical industry in Russia itself, and this circumstance is beginning to tell upon the demand for both English and Belgian iron in the Emperor ALEXANDER’s vast dominions. As regards the United States, Belgium appears to be almost nowhere as an exporter of iron. An attempt was made, or at any rate talked of, a few years since to develop shipments of Belgian iron to the United States, but it has come to very little, two-thirds of the iron exports made by Belgium to the Americans consisting of old iron, and principally of old rails. As regards railway iron, it may, perhaps, be interesting to institute a direct comparison between the Belgian and English exports of this important class of iron during the first nine months of the last three years:—

## Exports of British and Belgian Railway Iron.

	1870.	1871.	1872.
British .....	Tons 862,000	756,000	721,000
Belgian .....	106,000	64,000	63,000

Excess of British .....

756,000 .....

692,000 .....

659,000 .....

In this comparison we do not come out so well, as we emerged from the preceding calculation. The greatly increased price of rails has, of course, checked, if not altogether suspended, the prosecution of the less urgent class of railways, and the demand for both British and Belgian railway iron has fallen off in consequence.

**HOOPS, SHEETS, AND PLATES.**—The export of hoops, sheets, and plates from the United Kingdom in November amounted to 18,469 tons, as compared with 18,618 tons in November, 1871, and 13,396 tons in November, 1870; and in the 11 months ending Nov. 30 last year, to 191,441 tons, as compared with 183,981 tons in the corresponding period of 1871, and 166,711 tons in the corresponding period of 1870. Our largest foreign customer for hoops, sheets, and plates has been the United States, which took 29,829 tons in the first 11 months of 1872, against 38,936 tons and 36,618 tons in the corresponding periods of 1871 and 1870 respectively. The exports increased last year to Germany, Holland, France, Spain, British America, British India, and Australia; but they decreased to Russia and the United States. The value of the hoops, sheets, and plates exported in November, 1872, was £350,104/-, as compared with 225,730/- in November, 1871, and 158,315/- in November, 1870; and in the 11 months ending Nov. 30 last year, £310,658/-, as compared with 2,173,304/- in the corresponding period of 1871, and 1,914,114/- in the corresponding period of 1870.

**PROGRESS OF MINING INDUSTRY, 1872.**—The year just closed having been one of almost unexampled prosperity for mines producing every description of metal or mineral, a brief sketch of its progress cannot but prove of general interest. In the Supplement to this day’s Journal we publish a careful review of the principal operations of the year, from which it will be seen that with some exceptions the prices of mine shares are quite as satisfactory as they were at the close of 1871, although during the latter months of the year many mines have had to contend against not only a decline in the price of their produce, but also against a simultaneous advance in the price of fuel and labour and a diminished supply of labour. These difficulties appear to be now gradually disappearing

pit has been managed; for it is conclusive that the failure to keep a strict eye upon the chain was not the only oversight that has taken place. The verdict was legally one of accidental death, but it will be seen that it censures as well Mr. Rawson, the manager, as the engineer. The censure was drawn up by the jury in the following terms:—"That sufficient caution was not taken by Samuel Heighway, the engineer, in examining the chain (which had broken on Friday) on the Thursday before the accident, and the jury are of opinion that, considering the other duties he has to perform, a proper person should be specially appointed to carry out the provisions of the 13th rule; and the jury are further of opinion that the manager, Mr. Rawson, should himself see that the colliery rules are regularly and properly carried out, which the evidence shows has been systematically neglected." It will be a long time, we hope, before it becomes our painful duty to record a similar case. It is, however, an admonitory circumstance that only very recently a chain snapped at a colliery of some importance in South Wales. It occurred at one of the Powell Duffryn pits, at Ynyscoy, known as the William's Pit. After the tram of coals had been raised from the pit the chain broke, and the loaded tram and cage were precipitated to the bottom of the shaft, and were smashed to pieces, fortunately injuring no one. In consequence of the accident about 300 men were kept underground throughout the day, the work being stopped. We trust that the publication of these accidents will have the effect of causing the most careful attention to be given to colliery draw-chains where they have been long in use, and that wherever it is at all practicable such cumbersome machinery will give place to the much safer and more handy wire-rope.

## REPORT FROM CORNWALL.

*Jan. 2.*—The one topic of the week in mining circles has been the Rating Question, which has never assumed proportions so serious as now. Since for the moment a lull has arrived in the progress of the controversy it may be as well to pass its recent conditions briefly in review.

Everyone who is acquainted with the mere alphabet of the business knows that under the original Poor-law Act of Elizabeth mines other than coal mines were not rateable, and, in fact, have never been rated; but, though not rated themselves, it was the custom until within a very recent period to rate certain of these concessions. Thus rates are payable upon the dues of the lords when reserved in kind, as they always were until a comparatively recent period. When, however, the dues began to be paid in money a legal struggle commenced, and at length it was decided by the well-known case of the "Queen v. Tremayne" that dues paid in money are not rateable. From that day to the present, except upon certain properties where arrangements to the contrary have been made by the landowners, the metalliferous mines of Cornwall and Devon have ceased to contribute to the rates.

To this result another legal decision had previously contributed. It had been held by authorities of weight that, though mines as mines—i.e., as underground workings—were not rateable, their surface works were, and that, in fact, liability to rating commenced the moment the ore was brought to "grass." Nearly 50 years ago, however, another well-known case, "The King v. Bilton," decided that the hauling-engine of an iron mine was part of the mine, and, therefore, not rateable; and thus, after many a notable fight over the problem, "What constitutes a mine?" the attempt to assess surface works dropped. It was and is held by many that "Rex v. Bilton" was not a sound decision; and that, to quote a recent writer, "the business of the miner ended with the deposit of the ore on the surface. If he chose to add to this business the trades of blacksmith, carpenter, storekeeper, giver of good dinners in the courthouse, and general manufacturer of the ore, he could not thereby free himself from ratability. So clear is the distinction between the trade of the miner and the trade next after his, that to this day the miner in small mines sells the ore to the bargain buyer at the pit's mouth, and the buildings in which the latter manufactures the ore for sale to the next trade—that of smelter—are rateable." Still, however, the Bilton case ruled, and the "Queen v. Tremayne" finally settled the non-rateability under the existing law—with the exceptions named—of mines altogether.

In this condition matters remained for several years. Nobody ever defended the principle that mines should escape rating, but the difficulty was what should be done. At length the increasing pressure of local burdens forced the subject again into prominence; and finally, under the auspices of Mr. T. S. Bolitho, whom no man in Cornwall is more capable of dealing with the peculiar interests of the county, the "County Assessment Committee" was formed, and an agreement arrived at, satisfactory to all parties concerned, that mines should be rated upon the basis of the lord's dues.

And, no doubt, this decision would long ere this have had the force of law had it not been for the constitutional inability of Parliament to understand that there may exist different conditions of apparently similar interests in different parts of the same kingdom. This, no doubt, is partly due to a desire that one rule shall apply to all parts of the country (which looks very pretty in theory but is impossible in practice, and not very much less absurd than a statute ordaining that everybody should work at the same trade), and, partly, a consequence of the indisposition of our Legislature to give itself the trouble to understand matters which do not command public attention. Thus the western members found that year after year slipped away without their having a prospect of being able to carry any special legislation; so that at last the wisest course seemed to be to wait until the Government introduced its general rating bill, and obtain the insertion of a provision therein that would meet the case. If more sensational legislation had not stopped the way perhaps before this everything might have been amicably arranged. However, it was not; and the next legislative step taken was by Mr. Henry Lopes, Q.C., who introduced a Bill to declare the dues rateable, whether reserved in money or in kind, and to avoid any risk of double rating, to add a proviso that in no case where the dues on royalty is rated should the surface or machinery, &c., be rated also. Although approved by the Government (two members of which supported the second reading), and although read a second time in the House of Commons, by which the principle of the Bill was affirmed, it failed to receive active support in Cornwall, and having been introduced at a late period of the session, and its further progress having met with insurmountable obstructions, it failed to become law.

Nor was this to be wondered at. While the Legislature had been standing still the Courts of Law had been going ahead. A decision in the Court of Queen's Bench—*Guest v. East Dean*—had affirmed the rateability of surface works of a mine in the Forest of Dean. Did this apply to Cornwall and Devon, or not? If it did, then western mines were rateable without fresh legislation; and there was danger lest in pressing forward Mr. Lopes's Bill the mines would become liable to double assessment—once in the dues, and once in the surface works. Obviously, the proper course to adopt was to solve this knotty point before going further.

Occasion for this has now been supplied by the guardians of the Liskeard Union. Tired of waiting for Jupiter to help them, they have put their own shoulders to the wheel, have accepted the decision in "*Guest v. Dean*" as conclusive, and have assessed the following 10 mines in their Union in the net rateable value of £5302:—

	Gross rental.	Rateable value.
South Caradon Mine	£1432 0 0	£1157 0 0
West Caradon	237 0 0	192 17 6
Cradock Moor	279 0 0	229 5 0
Wheal Mary Ann	770 15 0	595 12 6
Wheal Trelewney	687 15 0	527 7 6
Phoenix Mine	1359 15 0	1064 15 0
West Phoenix	150 0 0	116 5 0
Herodsfoot	293 0 0	241 17 6
East Caradon	487 15 0	372 10 0
Marke Valley	703 15 0	548 10 0
East Phoenix	326 0 0	265 0 0
Total	£6707 15 0	£5302 0 0

They cannot be blamed for thus endeavouring to cut the knot. Rather, we think, will the county be indebted to their action, although, as the East Dean case is not yet finally settled, they might have waited a little longer. But if, as is stated, they are acting under

the advice of the Local Government Board, all we can say is that that body is displaying the capacity for "meddling and muddling," which, unhappily, is rather characteristic of departments than otherwise. The course taken by the Liskeard guardians will lead to the final settlement of the law as it stands before any fresh legislation is undertaken; and it is for this that the mining interest of the county will be endeared to them. The interference of the Local Government Board can have no other object than double assessment.

Such being the condition of affairs, it was impossible that the action of the Liskeard Assessment Committee could be allowed to pass unchallenged. Not only was double assessment looming in the distance, but it was felt that even the single assessment, if upon surface works, would not be satisfactory. The lord gets his dues under any circumstances while ore is being raised, and it is no hardship, therefore, to levy a contribution upon what is clear profit. But to assess surface works and machinery would in any cases be to rate not profit but loss, and would check most seriously mining enterprise. Accordingly, the whole of the mines assessed entered appeals against the assessment, to be heard at the Epiphany Quarter Session for the county on Tuesday last; they were, however, then adjourned, in order that the point of law might be argued on a special case to be stated for the decision of the Court of Queen's Bench.

On the part of the mines the battle is being fought by the "Mines Defence Association," formed at a meeting at Plymouth on Monday, and at present representing chiefly East Cornwall and South Devon. Mr. Christopher Childs, who is conducting the case on behalf of this body, does not believe that "*Guest v. Dean*" applies to Cornwall, the basis of the decision therein being that there was a demise of the surface. This is not the case in Cornish mining sets, which are only mining licenses. However, that is point which will be better settled by the course adopted than by the hearing of the appeals at Bodmin.

Future action must depend upon the decision of the Court. Mr. T. S. Bolitho has announced that as soon as there is any decision on the appeals, or the Government rating bill, which he believes will meet the case in point, he will call a meeting of the county committee. Mr. Lopes has pledged himself to re-introduce his Bill in the next session of Parliament, although he is quite willing to hand it over to the county members if they will take it in hand (as he offered to do in the past session), and in that case to render every assistance as a private member of the House representing a Cornish borough. However, we take it that it is a matter that must depend entirely upon circumstances.

The meeting was held at Chubb's Hotel, Plymouth, on Monday, when Mr. Wm. West, of Phoenix, West Phoenix, and other mines, was voted to the chair, and amongst those present were Messrs. Thomas Morris, Devon Great Consols; William Skewis, West Maria and Fortescue, Dunsley, Kit Hill, Wheal Arthur, and West Phoenix; R. Bayly, Plymouth; Christopher Childs, Liskeard; Jas. G. Dymond, South Caradon; John Holman, South Caradon Mine; R. Pryor, New Great Consols, North Treskerly, St. Just Amalgamated, Cape Cornwall; M. Loam, Liskeard; Joseph Matthews, Tavistock; R. Clegg, West Chiverton; G. Nettle, Wheal Mary Ann; Joseph Harris, Wheal Mary Ann; J. Taylor, Craddock Moor; Mr. George, Wheal Betsy; N. Richards, West Caradon; J. C. Isaac, Brookwood; Mr. Thorne, East Caradon; Capt. Seccombe, Gunnislake Clitters; Captain Main, Wheal Arthur; B. Childs, Liskeard; Capt. Betteby, Furze Hill; Captain Symons, Hatt; Capt. Phillips, London; W. Taylor, Glasgow Caradon; Jas. Joll, Devonport; W. H. Rule, South Caradon; G. G. Gibson, North Kingston; and W. H. Kemp, Brent.

Mr. Loam moved:—"That an association be formed, to be called 'The Mines Defence Association,' and that the object of such association be to resist all attempts to assess the surface buildings, machinery, tramways, and plant of the metalliferous mines in Cornwall and Devon to the poor and other rates, until it be declared by the higher legal court of appeal or required by legislative enactment that such mines are, or shall be, liable to be assessed to such rates; and that the mining companies in Devon and Cornwall be invited to join such association."

Capt. Skewis seconded the motion, which was unanimously passed, Mr. Morris expressing an opinion that no doubt all the mines would gladly join in the plan for testing the assessment.

Mr. Childs believed that if they did not oppose the rating, Parliament would bring in a bill to rate mines, but if they had a case pending in opposition to such rating he did not think this would be done. He believed the Liskeard Guardians were acting under advice from the Local Government Board.

On the motion of Mr. W. P. Kempe, seconded by Mr. J. Matthews, the following temporary committee was appointed to carry out the foregoing resolution:—Messrs. W. West, J. Morris, W. Skewis, M. Loam, J. G. Dymond, Phillips, Pryor, J. C. Isaac, W. G. Nettle, J. Taylor, Holman, Trevellion, W. Taylor, R. H. Williams, N. Richard, J. Seccombe, W. Thorne, W. Bettelle, W. George, and W. H. Rule, *see pro tem.*

Our prediction of the good things that 1873 had in store has received singularly rapid confirmation, and our belief that with the New Year the reaction in the Tin Standard could not longer be delayed has been verified at the earliest possible moment by the rise of £3. announced on New Year's Day. This is a capital beginning, but it is only a beginning, and the chances are that before the pendulum again swings the other way there will have been a decidedly substantial improvement. Let mining men, therefore, be wary, and they may see the figures in our next paragraph increased.

Following are the amounts paid in dividends by mines in Cornwall during the past year:—Botallack, 3200/-; Cargoll, 2147/-; Carn Brea, 15,500/-; Cook's Kitchen, 9187/-; 10s.; Dolcoath, 45,645/-; East Caradon, 1436/-; East Pool, 7200/-; Great Wheal York, 1477/-; Huntington Down, 6000/-; Lovell, 113/-; 12s.; Marke Valley, 3600/-; New Pembroke, 2340/-; North Levant, 2300/-; Pendarve, United, 512/-; Penhale, 250/-; Phoenix, 4700/-; Providence, 1850/-; South Caradon, 12,288/-; South Carr Brea, 1875/-; Spearne Moor, 121/-; Tincroft, 45,000/-; Trumpet Consols, 8000/-; West Chiverton, 4500/-; West Wheal Frances, 2118/-; West Seton, 3500/-; Wheal Grenville, 1942, 2s. 4d.; Wheal Kitty (St. Agnes), 5500/-; Wheal Kitty (Lelant), 250/-; Wheal Margaret, 800/-; Wheal Mary Ann, 1100/-; Wheal Owles, 1980/-; Wheal Uny, 817/-; Wheal Bassett, 1280/-.

## REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

*Jan. 2.*—Increased firmness in the tone of the South Staffordshire Iron Trade is observable this week, and quotations have further advanced for some descriptions of finished iron. Sheets (singles) are quoted 15/- 10s., being 10s. advance on the rate ruling before Christmas. The Earl of Dudley, Messrs. Barrows, Messrs. Baldwin, and other leading firms still decline to take orders except at special quotations. There is an indisposition on the part both of first and second class firms to enter into long engagements, owing to the belief that higher prices will have to be declared to meet the great and increasing cost of manufacture. On the other hand, buyers are now anxious to place orders which had been kept back until very recently in the hope of a reduction. Increased supplies of pig-iron are coming into South Staffordshire from the north of the county, but last quotations for native brands are firmly sustained, and it is rumoured that additional furnaces will shortly be put into operation.

Mr. Henry Johnson, the president of the Dudley Institute of Mining Engineers, at a meeting held on Monday (a report of which is appended), called attention to the doubt still existing as to the correct interpretation of the word "manager" in the Mines Regulation Act.

It seems very strange that up to the very day on which the Act came nominally into operation any doubt should be allowed to remain as to a point of such importance. As to the term "competent person," of which, also, an intelligible definition is needed, the Institute expressed, by formal resolution, the opinion that the term applied within the meaning of the Act to "the butty, his deputy, or other competent miner." It seems likely that some weeks must elapse before the Act can be put into practical operation.

Some idea of the augmented cost of ironmaking, caused by the unprecedented price of coal, is afforded by a recent estimate that 8 tons of good coal are consumed from first to last in the production of 1 ton of best Staffordshire iron.

The Iron Trade of North Staffordshire is considerably more buoyant, and some large specifications, especially for bars and plates, are coming to hand. The mills and forges are in fuller operation than we have been able to report for some time past. In pig-iron the transactions on account of the new year have been of very fair extent, especially as regards the Chatterley and other well-known makes.

The demand for Coal in North Staffordshire continues exceedingly brisk, and prices are again firmer. In the Longton district an advance has just been declared, the current quotations being—Coal, 13s. 4d.; and slack, 7s. 1d. per ton.

Engineering ironworks and other heavy hardware in the Black Country are in steady request, and the new year opens with very fair promise to most of the manufacturers. Railway rolling-stock, wrought-iron boiler and girder work, gas tubes and fittings are among the more prominent features of enquiry, the former tone of the market for raw material having brought out contracts which had been withheld in the hope that prices would be more in buyers' favour. Builders' and sheet ironmongery commands a well-sustained request, principally on account of the Australian and New Zealand markets.

Messrs. Jonah and Geo. Davies, engineers and ironfounders, Tipton, have this week suspended payment. The estimated liabilities are 8700/-, but it is understood that the principal creditor (Staffordshire Joint Stock Bank) is secured. A petition for arrangement was filed on Monday, and a meeting of the creditors will be held on the 23rd inst.

At a conversation held at West Bromwich on Monday, an inter-

esting selection of geological specimens from the South Staffordshire coal field was exhibited. The principal features of the collection included fossils, coal, and fire-clay from the Sandwell Park sinking, and also samples of the recent boring. These specimens excited considerable interest.

The quarterly meetings of the Iron Trade of South Staffordshire will be held next week—at Wolverhampton and Birmingham on Wednesday and Thursday respectively.

**COAL AND IRON TRADES OF NORTH STAFFORDSHIRE.**—A quarterly meeting of the North Staffordshire Coal and Ironmasters' Association was held on Thursday, at Stoke-on-Trent. Mr. Wragge, the Chairman of the Association, presided. The trade in all departments was reported to be tolerably active, but the demand was fluctuating, and prices irregular. A letter was read requesting, on behalf of the ironworkers of the district, a meeting between the employers and a deputation from the men in reference to the wages of puddlers and millmen. It was decided to accede to the request, and Monday was fixed for the meeting. The Mines Act of 1872 was brought forward, and several matters arising out of it were discussed. Arrangements were made for framing new Special Rules, and providing the forms and books required to be kept by the Act.

## THE NEW COLLIERIES RULES—THE "MANAGER."

An extraordinary meeting of the members of the South Staffordshire and East Worcestershire Institute of Mining Engineers was held on Monday, in the Museum, Dudley. Mr. H. JOHNSON (President) in the chair. There was a large attendance. In opening the meeting, Mr. Johnson reported that the new special colliery rules remained as they were at the last meeting. He had seen the Government Inspector, who had informed him that no further meeting for their consideration had yet been held. The President stated that he believed that every mining district in Great Britain was in the same muddle and uncertainty as to the term "manager" as they were themselves, and he thought it would be some time before all parties understood their duties, and could settle down to work according to the Act. As some evidence of the difficulties in obtaining certificates of service, he had been informed that one of the best mining engineers in the district, who for the last two months had been in almost daily intercourse with the local Government Inspector, applied for a certificate of service, and gave as a reference three of Her Majesty's Government Inspectors of Mines—Messrs. Wm. Alexander, Ralph Moore, and Peter Higson—in whose district the applicant had practised for many years before coming to this district. Besides these references, the applicant possessed very high certificates from Edinburgh College for his attainments in mathematics, chemistry, metallurgy, mineralogy, geology, &c., as also a testimonial from the present Premier of England. His application for the post of colliery manager was duly transmitted by the Home Office authorities to Mr. Baker, the Government Inspector, who immediately applied to the mine agent's present employer to know if he was a "fit and proper person to fill the post of manager." To him (the President) this looked like stretching the Act to a degree scarcely to be tolerated, but possibly there may have been some informality in the application, and he referred to the subject by desire of the applicant as information to other applicants for certificates of service. Mr. Wm. Spruce thought it very desirable that the Institute should embody its idea of the term "manager" and his duties, and who the "competent person" to be appointed by him might be. Several members asked whether in the absence of any special rules or forms for registering under the Act they were to proceed with their work after January 17. The majority were adverse to begin.

The PRESIDENT answered that some grace would surely be allowed, especially as it was impossible to get the necessary forms at present from the printers. The Government authorities had no doubt been worked very hard to get matters so far advanced.

With regard to who should be "manager," Mr. James Timmins said that his men had positively refused to work under the immediate direction of a mining engineer; they were determined to have some middleman who had been brought up a collier all his life; they wanted practical supervision, not theoretical.

Mr. FIELD complimented Mr. Timmins's workmen on their common-sense view of the matter.—The PRESIDENT pointed out the distinction made in the Act between "daily supervision" and "inspection." "Daily supervision," he considered, applied to the manager; "inspection" to some "competent person" to be appointed by the manager.—Mr. DANDO wished to know whether it would be right for a manager to appoint a "chartermaster" (butty) or his "deputy" (doggy) as the "competent person" to carry out his orders?—The PRESIDENT said he knew a very large firm in the district which had adopted this course. The firm had taken an eminent counsel's opinion upon this point, which was that any chartermaster or deputy could be appointed by the manager as the "competent person." (Hear, hear.) Referring to the new special rules, Mr. Johnson besought his hearers to watch their framing closely as to the individualising of the responsibilities under them, so often debated by the Institute without much avail at present. The new special rules were bound to be read concurrently with the Act, and if the responsibilities of all parties concerned were properly and clearly defined he thought a great deal of the dread of the penalties under the Act would be dissipated.—The President expressed a hope that before long the Government would see the desirability of appointing some clever mining commissioner for each mining district throughout the kingdom, whose sole duty should be to adjudicate upon mining matters exclusively. He felt quite sure that cases arising out of the Mines Inspection Act, Masters and Servants Act, the new Mines Drainage Act, and indeed all disputes arising from mining matters, would be better referred to a special mining commissioner, and the fees arising therefrom would be ample to handsomely remunerate such an official.—Mr. FIELD said the plan adopted by the firm referred to by the President as to the appointment of their chartermasters and other deputies as "competent persons" was a good one, because the chartermasters and their deputies were the best men to watch over the collier's safety, as well as being the most competent men in the mine. (Hear, hear.)

Mr. Wm. Spruce then moved "That it is the opinion of this meeting that the 'competent person' within the meaning of the Act may be the butty, or his deputy, or other competent miner, at the discretion of the manager."—Mr. HICKMAN seconded the resolution, which was carried unanimously.

Mr. W. DAVIES submitted several forms designed to simplify the recording of the daily state of the mine, &c., which were received with unanimous approval; and a vote of thanks was passed to Mr. Davies for his admirable suggestions. It was also determined to have the forms printed under the auspices of the Institute.

## REPORT FROM MONMOUTH AND SOUTH WALES.

alteration in wages; so the battle rests between the men and the ironmasters, and the latter have strongly denounced the arbitration award, which has thrown the difficulty entirely upon them, and they will not hear of further arbitration. As to the bituminous coal workers, it is difficult to say what course will be taken. Some of the masters are willing to go to arbitration, but the majority are not, and the men assert that they will not work under the reduction after the end of the month.

A serious conflagration has broken out in the Morfa Colliery, the property of the Messrs. Vivian. There was a sudden escape of foul air from old workings, and soon the colliery was full of smoke and flames. The men escaped, but 15 houses perished. The colliery was the scene of a shocking explosion of gas a little over 12 months ago.

The arrivals at Swansea include—the William and Anne, from Bilbao, with 350 tons of iron ore, for T. S. Sutton; the Deloras, from Revadesella with 15 tons of copper ore, and 39 tons of iron ore, to order; the St. Paul, from St. Malo, with 230 tons of iron ore, and 50 tons of pig iron, for Lettrechoux, Callier, and David; the Fleur de Marle, from Bordeaux, with 175 tons of pigwood, to order; the Rosalie, from Malaga, with 84 tons of calamine, and 56 tons of copper ore, for A. W. Bell; the August, from Bordeaux, with 470 tons of pigwood, to order; the Victoria, from Memel, with 498 pieces of fir timber, 607 deals, 800 oak pipe staves, and 10 fms. of lathwood, for Gregor Brothers; the Perl, from Bilbao, with 800 tons of iron ore, for J. D. Jones; the Elise, from Bordeaux, with 200 tons of pigwood, for Mordieres; the Cleveland, from Cartagena, with 1200 tons of iron ore; Evelyn, from Bilbao, with 360 tons of iron ore, for the Tagus Iron Ore Company.

#### REPORT FROM SCOTLAND.

*Jan. 1.*—The market for the past week has been very firm, with a good business doing from 117s. 6d. to 122s. 6d. for warrants. Yesterday forenoon the market closed for the year, with buyers 119s. 3d. cash and 120s. one month. To-day is a holiday, and the town is *en fete*. The disputes with the colliers, and the interruption to the make, still continues, and the very small stock the dealers have now to work with gives great firmness to the market. No. 1 ordinary brands quoted 122s. 6d. to 127s. 6d.; No. 1 special brands nominally 140s. A number of additional furnaces have had to be damped down for want of coal.

Malleable Iron continues difficult to buy at the list price, and it is anticipated that makers will declare an advance early this month. Melters are open for orders, but the engineering trades are well employed, and locomotive builders are said to have work in hand for several months to come. With regard to prices, there is a kind of cloud enveloping the future, but as work is to be generally resumed on the 6th a declaration of price cannot be long delayed.

The Coal Trade remains in the same chaotic state in which we last week reported it, accompanied, however, with signs of the colliers capitulating on the terms of a reduction of 1s. per day. The shipments of coals from the Scotch ports are returned for the week just closed at 13,489 tons, while in the corresponding week of last year they reached 44,166 tons.

The expected rise in copper has enhanced the value of copper mining properties, and Tharsis shares have advanced 5s. 6d. on the week; ditto, new, 20s.; Huntington, 20s. The iron companies' shares are rather easier, if anything. Shorts were 10s. under the top of the week, and Monkland 5s. Emmas are firmer again, and close 21s. 3d. above the lowest.

An elaborate statement of the Scotch Iron Trade during the past year is published in the Supplement to this week's Journal.]

#### REPORT FROM THE NORTH OF ENGLAND.

*Middlesborough, Dec. 2.*—Owing to the Christmas and New Year holidays there has been very little done this week in the Cleveland district. Many of the works, indeed, have been laid off for the whole week, and will not resume operations until Monday next. Anything that has been done during the last few days took the form of stock-taking, which at this season of the year is always the labour of a longer or shorter period, according to the amount of stock at the different works. This year the process is likely to be both short and light, as there is practically no stock in warrant stores, and masters have a more bagatelle on hand, some of them not more than a couple of days make. This renders the demand still as active as possible, and keeps up the prices. On Tuesday there was not much business done on "Change," but the market was firm at 102s. for No. 3, and the opinion of sellers was that prices inclined to stiffen. Many firms are well sold forward, and contracts are easily booked for delivery during the first six months of next year on the basis of 100s. for No. 3. The output of ironstone continues much below the actual requirements of manufacturers. Messrs. Bolckow, Vaughan, and Company have had a great deal of trouble lately with their miners at Eston. The strike which took place there some weeks ago is practically over, but there is still an evident disposition on the part of the men to keep down supplies. It is the custom of Messrs. Bolckow, Vaughan, and Company to stock during a tolerably slack time, or when their miners are working regularly, so that they have always a supply to draw from when anything interferes with the regular output. The stock, however, has been much less than usual lately, and it is now all but exhausted. The output from the mines of this firm at Eston is at the rate of 2500 tons per day, and as a new drift is about to be worked on the other side of the hill, about a mile from Guisborough, it is likely to be increased to something like 3000 tons daily. Simultaneously with this, they are taking steps for an increase of their production of pig iron. Two new furnaces are in course of erection at the Eston Works, and other extensions are contemplated. It may be mentioned that the firm does not consume the whole of the ironstone raised in the Eston mines, large quantities being regularly supplied, under contract, to other ironmaking firms in the district.

A change has taken place in connection with the large concern hitherto carried on by Mr. Thomas Vaughan, son of the late Mr. John Vaughan, who was the real pioneer of the Cleveland iron trade, and to whom it is proposed to erect a monument in the town of Middlesborough. Hitherto Mr. Thos. Vaughan has enjoyed the reputation of being the largest individual pig-iron maker in the world, and he has had no one to share with him the responsibilities of his immense works. He has now assumed as a partner, Mr. George Neasham, formerly his secretary, and the concern will be carried on under the name or style of Thos. Vaughan and Company. It is not expected, however, that this change of name will involve any further change.

The Malleable Iron Trade is fairly active; the new Danks rotary puddling furnace is gaining in favour, and various works are contemplating its adoption. The Carlton Ironworks Company are erecting a complete plant on the Danks principle, and Messrs. Hopkins, Gillies, and Company are rapidly pushing forward the erection of their furnaces on the same plan. The Stratton Iron and Steel Company, at West Hartlepool, are experimenting with another form of furnace that they expect to combine other advantages with those that belong to Danks' invention, but they are not yet in a position to speak of results.

#### TRADE OF THE TYNE AND WEAR.

*Jan. 2.*—The shipping trade has been very much impeded lately owing to the dreadful weather experienced on the north-east coast. A succession of tremendous gales has caused seas to break on this coast scarcely, if ever, exceeded, and very serious loss to shipping and valuable lives has resulted. Owing to the Christmas holidays little business has been done these two weeks, but the demand for all kinds of engines, machinery, foundry work, &c., continues, and when stock-taking and the holidays are got over a good business is expected to be done in all branches of trade. A slight reaction has taken place in both the iron and coal trades, and the prices of both have been raised a little. The best steam coal on the Tyne, which had fallen from 27s. per ton to 18s., was raised yesterday to 20s., and the coalowners intend to keep it at that price. What will be the result of the new Mines Act when actually brought into operation it is impossible to say as yet, but there is a strong impression that a reduction in the output must result, for some time to come at all events, and in the face of this the price of coal must, to say the least, be maintained. We have noticed in this letter lately that the iron trade continues to prosper, and that all the coke has been sold, or nearly so, for next year, and this alone, of course, exerts a powerful influence upon the coal trade; of course, a large number of contracts have now terminated, and manufacturers are anxious to conclude others, but will not do so, as a rule, at the rates offered; they are, indeed, an enormous increase upon the former ones, and if manufacturers are compelled to pay those rates, which they cannot escape at present, the articles they produce must be largely increased in price, and what effect this may have ultimately upon the trade of the district is, of course, matter for speculation.

The very heavy rainfall has had a most serious effect in increasing the quantity of water to be lifted at many collieries, and much inconvenience has been caused. At the Stella Collieries one of the pits has been partially filled, owing to the closing of an old water-course, but this has fortunately been opened out after much exertion and the water has been again diverted into its proper course.

South of Gateshead a large quantity of land has been taken lately, and additional lines of rails are now being laid down on this land, and shortly a large extension of the Tyne Docks will no doubt be made, and although it is a very large undertaking there is no doubt a necessity for another high-level railway bridge across the Tyne at Newcastle, and this also, which has been projected some time, will no doubt be carried out.

The traffic on the North-Eastern Railway, which had decreased considerably during the last quarter as compared with the spring of the present year, has again rallied, and during the past three

weeks it has been very great, so much so that it has taxed the managers to the utmost to keep pace with it, and very often trains of all kinds have been detained very much behind the appointed time. Although the opening of the Team Valley afforded some relief on the main line, yet other important measures will no doubt be required at a distant date to enable the managers of this great system to keep pace with the constantly increasing traffic.

The Cumberland Coal Trade has been very slack lately owing to the prevalence of bad weather in the Solway Firth and the sea between the Cumberland coast and Ireland, and many of the works have been laid off a great deal in consequence. It appears to be a practice in Cumberland to lay the pits entirely off when no ships are to be had, no coals being banked out; this seems to be a strange custom, looking at the hard nature of the coal, which would bear laying down and lifting again, but such, however, is the general practice.

#### REPORT FROM LANCASHIRE AND CHESHIRE.

*Jan. 2.*—The colliery masters of Wigan and the South-West Lancashire coal field have come to an important decision with regard to the "play days" and "pay days" of the men in their employ. At a meeting held at the Royal Hotel, Wigan, on Friday, it was unanimously resolved that, in order to comply with the restrictions on the labour of young person under sixteen, and women on the surface, enacted by the Coal Mines Regulation Act, 1872, that in Wigan and the district the pay take place fortnightly on the Friday evening, and that the following Saturday be the play day every fortnight, instead of Monday, as at present; and that the necessary alterations in the terms of engagement be made with the men. The alteration, which is to come into effect on the first pay in January, will undoubtedly give satisfaction to the masters, if it can be carried into effect, but there are some doubts as to how it will be received by the men, who in many districts have not only been accustomed to make Monday a "play day," but have extended their holiday over several succeeding days of the week. This has caused immense loss to the proprietors, and has led to frequent disputes, which it is hoped the new arrangement will put an end to.

The Lancashire and Cheshire Miners' Permanent Relief Society, the object of which is to raise funds by subscription amongst colliery owners and miners to provide in cases of fatal accidents for the widow and children or other dependant relatives of the deceased, and in cases of accident where a member is enabled to make suitable provisions for him, has now been established, the rules having been sanctioned by the Registrar of Friendly Societies. The contributions of members under 14 is fixed at 1½d., and over 14 at 3d. per week, and each coal owner who is a member, is to subscribe 10 per cent. on the amount paid by the miners in his employ. The benefits in cases of fatal accidents are—half-members, 10/–, whole members 20/–; a funeral allowance of 5/– is to be paid, and widows are to be allowed 5s. per week, an 1/2s. 6d. per week for each child under age. In cases of disablement half-members are to receive 3s., and whole members 6s., during the whole period they are unable to work from the effects of the accident. Mr. Maskell Peace, to whom in a great measure the formation of the society is due, is the secretary.

The Coal Trade continues exceedingly active, but the Christmas holidays have greatly interfered with business. The supply is much below present requirements, and there are innumerable complaints as to the non-fulfilment of contracts. Rates are exceedingly firm, with the prospect of becoming still higher. In Iron there is every prospect that with the close of the holidays will come a very busy period. Prices for all descriptions are higher, and some eight firms are issuing circulars to the effect that unless special arrangements are made with regard to prices they will not enter into contracts except with the proviso that these are to be fixed by the rates ruling when they are able to make the deliveries. At Barrow shipping is more active, and founders and engineering establishments are very busy. A new wet dock, 35 acres in extent, is to be opened in a fortnight.

#### REPORT FROM DERBYSHIRE AND YORKSHIRE.

*Jan. 2.*—The workmen have got settled down to work, but as yet there is little to report with regard to the state of trade; the new year, however, has inaugurated a dispute and strike at the Coates Colliery, not far from Alfreton, so that about 180 men will have an extended holiday. The ironworks are doing well, and rather more coal has been sent during the past few days to the metropolis. The event of the week in South Yorkshire has been the announcement in several of the papers that an advance was about to be made in the price of house coal. Having seen several of the leading colliery owners, they stated that there was no immediate intention of increasing prices, although two or three pits in the Sheffield district are about to advance the rates. But as one swallow does not make a summer, so the effect caused by one or two colliery owners not being content with the very high rates will not seriously affect prices. It may, however, lead the principal firms engaged in the manufacture of iron and steel to do what they have been threatening for some time—close their works for three days a week. There is certainly a limit to forbearance, and so far as regards Sheffield is concerned, it has been stretched to the fullest extent. A meeting of the South Yorkshire Steam Coalowners' Association was held at the King's Head Hotel, Barnsley, on Tuesday, for the purpose of considering the price at which contracts should be taken. It was agreed that no alteration should be made, so that the existing rate of 16s. per ton will be maintained.

Borings are about to be made on the estate of Mr. R. Creyke, at Rawcliffe, near Goole, for the purpose of finding out whether coal is on the estate or not. The superintendence of the work has been entrusted to Mr. Smith, the well-known mining engineer of Doncaster.

**IN MEMORIAM.**—On Thursday last, Mr. JOHN PLATTS, one of the most respected viewers in Yorkshire, died at his residence, Pillay, near Barnsley, at the comparatively early age of 53. Mr. Platts, in addition to being a viewer, was also the proprietor of the Chapeltown Colliery. Mr. Platts nearly 20 years ago undertook the sinking of the Wharncliffe Silkstone Collieries, and continued to be the viewer up to the time of his death. He was known throughout the district as a man of genial disposition, unbounded hospitality, and ever ready to assist those less fortunate than himself. He rendered valuable services on the occasion of the Lund Hill and Oaks explosions, and as one of the volunteer explorers of the latter in 1856. His remains were interred at Tankersley Church, on Monday last, and were followed by upwards of 1000 persons, including the managing partner of the colliery, Mr. H. Walker, and his son, a number of mining engineers, and the whole of the workmen at Wharncliffe Silkstone and from his own colliery. Mr. Platts, it may be said, was a thoroughly practical man, and introduced at Wharncliffe the most complete system of endless wire ropes then in Yorkshire, inventing a movable pulley, which acted in connection with Fowler's patent clip kept the ropes quite tight. He also aided materially in introducing the coal-cutting machines of Mr. Hurd and Messrs. Gillott and Co.

#### THE MINES REGULATION BILL.

A numerously attended meeting of coalowners and colliery managers took place on Tuesday, at the King's Head Hotel, Barnsley. The object of the meeting was to receive a deputation from the workmen at the collieries in the district, for the purpose of arranging as to the working hours of boys, and how the 54-hours system was to be carried out. At the meeting those present as owners and managers included Mr. Stewart, Lund Hill; Mr. Ryecroft; Mr. Pope, Denaby Main; Mr. Jeffcock, Sheffield; Mr. Mitchell, Swinfield and Edmund's Main Collieries; Mr. J. Mitchell, jun.; Mr. Emberton and Mr. Pepper, Monk Bretton Colliery; Mr. Swanston and Mr. C. Bevans, Dodworth and Higham Collieries; Mr. Miller, Strafford Main Colliery; Mr. Ramsay; Mr. Wilson and Mr. Carr, the Oaks Collieries; Mr. Evans and Mr. Minto, the Holmes Colliery, Rotherham; Mr. W. Day and Mr. Muskie, Mount Osborne and Rosa Collieries; Mr. Cooper, Roundwood Colliery; Mr. Newton and Mr. A. Chambers, Thorncliffe and Chapeltown Collieries; Mr. Bowcher and Mr. Ryecroft, Lund Hill Colliery; Mr. Hodgkins, Main Colliery; Mr. Thompson, Denby Colliery; Mr. Blythe and Mr. Defty, Wombwell Main Colliery; Mr. Thompson, Mansers Main; Mr. Haynes, Hall Road Colliery; Mr. Linton, Old Silkstone Colliery; Mr. Peacock, Hoyland Colliery, &c. The deputation on the part of the men consisted of Mr. Norman and Mr. Casey, joint secretaries of the South Yorkshire Miners' Association; and Mr. Mouison, the president, associated with them by Mr. J. Wheat, Wombwell Main; Mr. T. Haigh, Bradford Main; Mr. S. Hall, the Holmes; Mr. W. Harrison, Rawmarsh; and Mr. Handcock, Clay Cross.

Mr. STEWART, who was called to the chair, stated that it was desirable that some system should be laid down with regard to the carrying out of the clause relating to the working hours of boys, which were limited to 54 per week. They had met at the request of the representatives of the South Yorkshire Miners' Association, with a view to coming to an arrangement on the subject.

Mr. NORMAN stated that he and the association took a great deal of interest in the question, which had been fully discussed at a recent meeting of the delegates from all the lodges, when the following resolutions were come to:—

Resolved.—This Council, having discussed at length the question of carrying out Clause 6 and 7 in the new Mines Regulation Act, is of opinion that the two following resolutions will work the clause in a satisfactory manner at every colliery in the districts named below, provided the owners and workmen will agree to work under the regulation stipulated in either of the resolutions. And with a view of carrying the same into effect this Council instructs the deputation appointed to meet the coalmasters to-morrow (Tuesday) to lay such resolutions before them, with an urgent request that one or the other, or both, of the systems of working under the new Act be adopted at every colliery.

"That in the opinion of the Council of the South Yorkshire Miners' Association the clause in the new Mines Regulation Act, in reference to the employment of boys or young persons between the age of 12 and 16 years, should be made workable by

arranging it in the following manner:—1. This class of boys, or young persons, employed in the pits or mines of South Yorkshire and North Derbyshire districts, not to be in the pits or mines more than 9½ hours out of the 24 hours per day, and not more than 6½ hours on Saturdays. 2. Should these boys, or young persons, or any portion of them, have to play or lose their short day on the Saturday (through causes over which themselves have no control) they shall be entitled to the same on the first working day afterwards. 3. That in the event of short time having to be worked through slack trade or any other cause, in no case the boys to be in the mines more than the 9½ hours out of the 24 hours per day. 4. That in all cases where these boys, or young persons, have finished their day's work before the specified time to be allowed to leave the mine in the same manner as previous to this arrangement being made."

"That the Council of the South Yorkshire Miners' Association is of opinion that the clause in the new Mine Regulation Act in reference to the employment of boys or young persons between the age of 12 and 16 years should be made workable by dividing the 54 hours per week into six parts, thus giving 9 hours out of the 24 hours per day for the six days in the week, with the understanding that the boys referred to leave the mine when their day's work is finished, in the same manner as previous to this arrangement being agreed upon."

The deputation appointed by the Council on Monday met the coalmasters on Tuesday, at the King's Head, and discussed at length the above resolutions, which resulted in the formation of a committee of employers and managers to further consider the question, and the deputation was informed that an answer would be given in eight or nine days, and that all the collieries would be worked until the end of the time named, in such a manner as the employers at the various collieries might think fit, provided everyone kept within the limits of the clauses of the Act of Parliament on this question.

#### THE MINING MARKET—1872.

As we also stated at the end of 1871, it would be impossible, in the small space allotted to this article, to write an elaborate review of the year; and we can only refer to a few of the prominent features of 1872, both in regard to Mines and the Market.

Amongst the mines which have been most prominent during the year are—Carn Brea, Dolcoath, Cooks Kitchen, Great Laxey, Green Hurth, The Lovell, Marke Valley, Penhalls, Roman Gravels, South Carn Brea, Tankerville, Terras, Tincoff, West Frances, and Wheal Kitty (St. Agnes) in the list of dividend mines; and Ashton, Bog, Cwm Vron, East Wheal Lovell, Llanarmon, Melllyn Moor, New Rosewarne, New West Rosewarne, Perran Wheal Vyvyan, Prince of Wales, Rookhope Valley, South Kitty, South Melllyn, Treleigh Wood, Treleigh Wood United, Van Consols, West Pant-y-Go, West Tolgus, Wheal Lucy, West Lucy, Wheal Osborne, Wheal Pevor, St. Agnes Consols, Wheal Tregoss, and many others which are still progressive only. In addition to these there have been large dealings in the foreign, especially dividend, mines, and as the shares have usually been purchased at a discount, the holders have in most cases received large interest for the use of their money.

The early part of the year was one of unusual excitement; tin advanced to a higher price than had been known for many years; and in consequence there was a rush for tin mines, and the shares in many of them sold at enormous premiums. Then came the reaction, the effects of which are now being severely felt. There would seem to be, in fact, no medium course in mining speculation; it is all excitement, or all depression. The Devon Great Consols shares once rose in one year from 12s. to 800s.; East Rose from 5s. to 1500s.; West Chiverton from 10s. to 500s.; Vans from 10s. to 80s. These things lend fascination to mining, and are never forgotten; and as there is seldom a year without some mine or other rising 300 or 400 per cent., the public rush into the market to buy on any good discovery being reported, and are just as eager to sell when there is any falling off or disappointment. And as a sudden or continuous demand on a limited market must of necessity advance the price of shares considerably, so must a pressure of sales bring the price down, until very often there are, for a time, no buyers at all. This is the secret of the "bears," and they often work so that market quotations are sometimes brought down to zero, without the sale of a *bona fide* share. The mine is first "banged," and then a constant offering of small parcels of shares, like the constant dropping of water, wears away the price. Every mine, too, would appear to have its supporters and its enemies, but it is some consolation to the public to know after a heavy fall in shares that there is always "hope" at the bottom. East Caradon were brought down to 1s. 6d. each in the market, but its friends never lost faith in it, and were soon rewarded with a rise to 50s. per share. Experience shows, therefore, it is wisest to sell in times of great excitement, and to buy in days of depression.

The amount of dividends paid by British mines during the year 1872 has been 362,401s. 3s. 6d.; foreign, 601,484s. 2s. 5d.; total, 963,885s. 5s. 11d., being greatly in excess of any former year. This excess is mostly owing to the gold and silver mines—and in which Emma figures for 180,000s.; Flagstaff, 69,000s.; Tharsis (sulphur), 83,879s.; Cape Copper, 68,750s.; English and Australian (copper), 17,500s.; Fortuna, 16,875s.; Pontgibaud, 19,375s.; Sierra Buttes, 33,750s. The old dividend mines of Cornwall in the early part of the year were in great prosperity, owing to the high price of tin; but, later on, the fall in that metal, and the increased prices of coal, iron, and other materials, and last, though not least, the advance in wages and the difficulty in getting men have materially affected their profits during the last half of the year. Tincoff, the richest mine in Cornwall, has paid 48,000s. this year, against 43,500s. last

Wood shares advanced from 15/- per 1000th share to 40/- per 6000th, or 240,000/- for the mine; but the works have not progressed with the like rapidity, and have caused some disappointment. The mine is said to be full of tinstuff, variously estimated at 100,000/- to 150,000/-, and many important points besides to come off. It has been looked upon, therefore, by the few gentlemen who own it, not in the nature of a speculation, but as one capable of making returns of tin only limited by the number of stamps to return it. At present 48 heads are at work; the first sale is looked for with much interest. Parys Mountain began the year with profits, and was making about 150/- a-month at the last meeting, but a fall of 1/- per ton in copper ore, and the great rise in coals, iron, and labour have, we understand, now turned the profit into a loss, and the question of further capital may have to be considered, by an issue of shares at a bonus to the present holders. For although the assets of the company, irrespective of the machinery and plant, would show a considerable surplus, a large quantity of ochre and precipitate cannot be turned into cash for some months. Two or three points in the mine, upon which large sums have been expended, are we understand just coming into play, and the prospects are good. Great North Laxey—one of the juveniles of last year, and a mine which ought to do well—has again to be wound up, in order to get fresh capital. West Pant-y-Go is in the same position, and it would be a pity to see such a speculation stopped on the eve of cutting well-known rich lodes. The delay, however, and the costs often so much beyond the estimates in many mines, are disheartening to shareholders. North Treskerby is spoken well of, and is likely to take a more prominent position in the coming year. Wheal Peavor also has fine prospects. New Seton has been a long and expensive drag upon the shareholder, but is looking better. New Rosewarne has been a great success, and a great disappointment. In the early part of the year there was one of the finest discoveries of tin made in Cornwall for many years, and for several months the lode was valued in the aggregate at 400/- per fathom. The mine was visited by a great many shareholders, who left it under the impression that they had a great prize, and shares rose to 11/- each, with the prospect of reaching 20/-; but the deeper levels of the mine as they were reached seemed not to be up to the run of the rich deposit seen at the 46 fm. level, which was dipping west, and may soon be met with now in the 58 and 67 fm. levels. Still, at the last meeting, in September, the agents valued the tin laid open at 20,000/-, and promised to sell 45 tons of tin for the coming quarter, and pay a dividend in January. There came accident after accident through the storms, which stopped dressing operations for some time, and the result would appear to be that, instead of the promised dividend, another call will be wanted. How far the shareholders have been deceived by the agents must be matter for enquiry; and while we have had reports from independent agents, not only confirmatory of their valuations and anticipations, there are others very far below them. The great difference arises as to the extent of the "bunch" and the percentage of the tinstuff, of which the agents from daily inspection *ought to be* the best judges, but the public judge by *results*, and results are against them. Of one thing all are agreed, that the mine is subject to sudden and rich deposits, and before a month has passed another may be met with, and shares at their old price. The copper also lately found may be referred to as an important point.

New West Rosewarne has got into full play, and will soon return good parcels of tin, and be one of the prizes of the year 1872. North Rosewarne is also improving. Wheal Crebor has advanced from 15/- to 4/-, and bids fair to become a paying mine. It is adjoining Devon Consols, and one to which we have frequently called attention as a promising speculation. In the same neighbourhood is South Ward—a mine we hear well spoken of, and the shares are in few hands. Bottle Hill advanced during the year from 6 to 16/-; the mine is only in 1200 shares, and worked cheaply by water-power, which is a great desideratum these times. The greater part of the year has been occupied in getting up new stamps and repairing the old, and the tin sold has realised about 12000/- of late the lodes have not been looking so well, but regular returns are expected in the course of the year. West Bassett, after many vicissitudes since it was a rich copper mine, is now likely to become a rich tin mine. Old Treburgett has sold during the year nearly 4000/- worth of silver-lead; is now about paying costs, and ought soon to make good profits. The lead is very rich for silver, and brings 28/- to 30/- per ton. The Prince of Wales Mine looks better in the bottom level both for copper and tin, and the silver lode may shortly be brought into play again. West Caradon has much improved, and likely to have a good rise during the coming year.

Among new speculations started during the year, which are known in the London market, and have fine prospects of success as soon as the machinery is complete, are Rose United, which, when stopped by water a few years ago had in it rich courses of ore. The present company started with a working capital of 10,000/-, and most, if not all, the necessary machinery is on the mine; Unity Wood is in a more forward state, and a large quantity of tin ground laid open. Penstruthal also, with great prospects, has been started with a capital of 50,000/. Wheal Roberts is under the same management as Wheal Crebor, and the agent has the highest possible opinion of it as a speculation. There is already a fine lode of tin. Plymhill ought to enter the dividend list this year, as it has been for some time making profits. Wheal Argus will probably have a great rise when the engine gets to work in a few months. The lodes were very productive when tin was at 40/-, and the deepest point reached 20 fms. below adit. To show the richness of the tin, the burrows left by the old miners, of which there is a great quantity, are being worked by water-stamps at a monthly profit.

A happy new year, and prosperous to "ONE AND ALL."

#### PRIDEUX WOOD TIN MINING COMPANY (LIMITED).

LANLIVERY, CORNWALL.

In 2000 shares of £5 each, fully paid.

This mine is contiguous to the celebrated Fowey Consols and parallel lodes, and is surrounded by mines which have been, or still are, rich in tin and copper. An engine-shaft has been sunk to a depth of 90 fathoms, and an adit driven to intersect the lode to a depth of 28 fathoms; an air shaft has also been sunk, and the mine well ventilated. It was originally worked for copper, and large quantities were raised. Subsequently tin was discovered, very large quantities sold, and the mine about paying expenses when it was abandoned: the price of tin at that time being little more than half the present price. The water also (a bountiful supply of which is conducted through the setts at a height of about 300 ft.) was then rented by the Fowey Consols Mine Company, and consequently not available here; that difficulty is now ended, and sufficient water available for drawing, pumping, and stamping the ore. Previous to the suspension of the mine, the ore was nearly all raised in tribute, but from the low price of tin and the expense of carting the stuff to the stamps (nearly one mile) no stuff was accepted which did not produce 28 lbs. to the ton, the result being that thousands of tons of stuff are now available for immediate stamping both at the surface and in the stumps, as well as thousands of fathoms of ground laid open for stamping; the average yield of the mine has been near 40 lb. to the ton, while it is well known by the advantages now at hand that half that quantity will pay handsome profits at a price of 60/- per ton of black tin, this being 25 per cent. below the present price. This calculation is made on the supposition that the whole of the stuff had to be broken; when, however, it is remembered that some immense quantities are ready for stamping, and that the stamp will be erected on the premises, and worked by water-power, the great advantages cannot fail to strike the most casual observer, and it is confidently asserted that an outlay of £4000 on machinery, &c., will enable the company to return eight tons of tin per month at one-half profit.

Much of the present workings are other rich tin lodes, which can be reached by continuing the deep adit level, and thus lay open a mine of great magnitude; these lodes will be intersected to a depth of 45 to 60 fms., thus leaving dry ground for stamping to an almost incalculable extent.

There is quite £5000 worth of work done for the new company, and no uncertainty of getting for the development of the mine, as the presence of the ore is certain, and in such quantities as must ensure immediate and great success.

The company has been registered under the Acts of 1862 and 1867, whereby the capital is limited to £5 per share. The necessary machinery, including two iron water-wheels, have been purchased under very favourable circumstances. The capital will be adequate for a vigorous working, and it is confidently believed that the undertaking will pay from 40 to 50 per cent. per annum dividend; 500 shares are now offered, the remainder being already applied for.

Further particulars may be known of the Secretary, Mr. EDWARD PETTIT SMITH, Chandos Chambers, 22, Buckingham-street, Adelphi, London.

**HORIZONTAL ENGINES**, of most approved construction, from 8 to 60 in. cylinder, for WINNING AND GENERAL PURPOSES. Some good secondhand HORIZONTAL ENGINES ON SALE, single and in pairs, from 14 inches to 20 inches cylinders, suitable for winding, &c. GOOD CREASE AND CO., 39, CONGREVE STREET, BIRMINGHAM.

#### CADIZ WATERWORKS COMPANY (LIMITED).

Issue of 7955 Ten per cent. Preferred Shares of £10 each, being the balance unissued of the 20,000 Preferred shares of the

Share capital, £200,000, in 20,000 Ten per cent. preferred shares of £10 each.

Entitled in addition to participate in the surplus profits after 10 per cent. has been paid on the ordinary shares. (The balance unissued, viz., 1555 shares being now offered for subscription, £150,000, in 15,000 ordinary shares of £10 each, of which 14,917 are allotted).

PAYMENTS.—£1 per share payable on application.

3      "      "      allotment.

3      "      "      1st March, 1873.

3      "      "      1st May, 1873.

£10

Interest at the rate of 7 per cent. per annum will be paid during the completion of the works (under contract to be finished by 1st January, 1874), and to ensure the due payment of the same the sum of £21,621 12s. 6d. Consols has been invested in the names of the undermentioned trustees—viz.

WILLIAM HAWES, Esq., F.G.S., Chairman.

JAMES BRUNLEES, Esq., M.I.C.E.

HENRY W. CHISHOLM, Esq.

Such interest will be paid quarterly—on 1st February, 1st May, 1st August, and 1st December. The next payment will be made on 1st February next.

DIRECTORS.

WILLIAM HAWES, Esq., F.G.S., 17, Montague-place, London, Chairman.

JAMES BRUNLEES, Esq., M.I.C.E., 5, Victoria-street, Westminster.

HENRY W. CHISHOLM, Esq., 21, Harewood-square, London.

SAMUEL SLATER, Esq., 36A, Moorgate-street, London.

SEÑOR DON J. G. GUTIERREZ, Cadiz.

SEÑOR DON A. A. JIMENEZ, Cadiz.

BANKERS.

Messrs. ROBARTS, LUBBOCK, and CO., 15 Lombard-street, E.C., London.

SOLICITORS.

Messrs. G. S. and H. BRANDON, 15, Essex-street, Strand, W.C., London.

ENGINEER—VALENTINE G. BELL, Esq., C.E., London.

AUDITORS.

Messrs. CHATTERIS, NICHOLS, and CHATTERIS, 1, Gresham-buildings, Basinghall-street, E.C., London.

BROKERS.

Messrs. GEORGE BURNAND and CO., 69, Lombard-street, E.C., London.

SECRETARY—Mr. B. G. KINNEAR.

OFFICES.

4, SKINNER'S PLACE, QUEEN VICTORIA STREET, E.C., LONDON.

The directors of the Cadiz Waterworks Company (Limited) are prepared to receive applications for 7955 ten per cent. preferred shares of £10 each, being the balance unissued of the 20,000 preferred shares of the company—the remainder (12,045 shares) having been allotted by the directors on the prospectus issued by them in July last.

Cadiz, the Liverpool of Spain, and one of the principal ports of Europe, is entirely without any proper water supply.

All attempts to obtain water in or near the town by boring or sinking wells have entirely failed.

The cisterns established under most of the houses for collecting and storing the rain water give only an uncertain supply of inferior quality, and are always dry in the hot season, when water is most wanted. The cost, too, of raising the water to the upper stories of the houses is considerable, a man being kept in most houses especially for this purpose.

The greater part of the water used in Cadiz is procured from the springs of La Piedra, being brought by rail and by sea from Puerto Santa Maria in large barrels containing 550 litres each. This water is sold to the water-carriers at an average rate of about 15 frs. per cubic metre, and retailed by these at an average rate of about 30 frs. per cubic metre, equal to 1/4 per gallon.

So great at times is the distress at Cadiz for want of water that the Municipality is forced to purchase water and to make gratuitous distributions of the same to the poor of the town.

The vessels which start from Cadiz for the various ports of Europe and America (to the number of about 5000 annually, with a tonnage of nearly 1,000,000 tons) are unable to get their water supplies at this port, and are forced to put into other ports for this purpose.

Two considerable towns, Puerto Real and San Fernando, besides the Arsenal of La Carraca and a large suburban population at Cadiz, are in as great need of water as Cadiz itself, and lie on the direct route of the main service pipe intended for the town.

To supply this deficiency a concession was obtained from the Municipality of Cadiz for bringing the water from the springs of La Piedra to Cadiz in pipes, and a sufficient pressure to supply the top stories of the highest buildings in the town, and granting a monopoly for the supply of the town for a period of 99 years. A caution money of 1,000,000 reals Spanish Three per Cent., has been duly lodged for the performance of the company's engagements.

The tariff allowed by the concession is a very advantageous one, the rates being nearly three times as high as in Paris, London, and most large towns. The Municipality of Puerto Santa Maria have ceded all their water rights and the lands required for the purposes of the works.

Since the company commenced its operations Messrs. Barnett and Gale, the contractors, have progressed with the works in the most satisfactory manner, and it is confidently anticipated that the entire works will be completed and handed over to the company before the end of the current year.

The Chairman personally visited the works in the month of September last, and his report, addressed to the board of directors, fully bears out the high expectations entertained of the favourable prospects of the company.

To illustrate the moderate expenditure proposed by this company in the construction of the entire works, a comparison of population to be supplied with that of other important cities shows that for Cadiz, with a population to be supplied of about 133,000, as given in Mr. Bell's report, the expenditure will be about £3 10s. per head, which contrasts favourably with that of the undermentioned cities:—

	Population.	
London.	3,300,000	has expended about £4 0 0 per head.
Liverpool.	500,000	" 4 0 0 "
Glasgow.	501,000	" 3 10 0 "
Bradford.	159,000	" 7 0 0 "
Halifax.	100,000	" 5 0 0 "
Dundee.	120,000	" 6 0 0 "

The following calculation of the income to be derived from this outlay is based on a consumption of only 12 gallons per head per diem, or less than one-half the daily consumption per head of London, Paris, Berlin, Madrid, and other large cities.

The population to be supplied being about 133,000, and the rate allowed by the tariff being 3s. 6d. per 1000 gallons to private consumers, and 1s. 9d. per 1000 gallons to the Municipality (182 cubic metres of water per diem being allowed to the Municipality gratuitously), the gross revenue may be taken at £62,500 0 0

Deduct working expenses, estimated at 3½ per cent. on the total supply of 582,540,000 gallons ..... £7,889 0 0

And setting aside 10 per cent. for a reserve fund and renewal of works ..... 5,491 0 0 = £13,380 0 0

Leaving an estimated net annual revenue of ..... £49,420 0 0

This calculation being based on less than one-half of the ordinary average consumption of water.

The annual revenue will be appropriated to the payment of 10 per cent. interest on the 20,000 preferred shares (after paying the interest on £100,000 debenture, estimated at £7000 per annum), then to the formation of a sinking fund of 1½ per cent. on the amount of preference shares and debentures for their redemption at par.

All surplus revenue (after paying 10 per cent. interest on the ordinary shares) will be divided *pro rata* between the preference shares and, if the estimate of income be made upon the basis of the ordinary average consumption of London, Paris, or Madrid, and other large towns, the estimated surplus revenue will be increased more than threefold.

Interest at the rate of 2½ per cent. per annum on the preferred shares now for subscription will be payable on each instalment from the date of payment thereof until the works are completed.

The whole or any of the instalments may be paid in advance, in which case interest on the full amount paid will accrue from the date of payment.

Failure to pay any instalment at the due date will render all previous payments liable to forfeiture.

In the event of no allotment being made to any applicant, the deposit paid will be returned forthwith without deduction; and should a smaller number than that applied for be allotted, the balance of the sum deposited on application will be applied towards payment of the amount due on allotment.

The Articles of Association and contract, and Notarial translations of the concessions, and also the reports of the Chairman and engineer, can be seen at the offices of the solicitors to the company, 15, Essex-street, Strand, W.C., London.

Applications, which must be accompanied by the remittance of £1 for each share applied for, must be made on the annexed form, and forwarded to the bankers of the company, Messrs. Robarts, Lubbock and Co., 15, Lombard-street, E.C., London, or to the secretary, at the company's offices.

Prospectuses and forms of application can be obtained from the bankers, brokers, and solicitors, and from the secretary, at the offices of the company, 4, Skinner's Place, Queen Victoria-street, E.C., London.

The directors have every reason to congratulate the shareholders upon the excellence of their investment, for after minute enquiry, and from the regular reports of the engineers, coupled with those received from the representative of the company in Cadiz, they cannot doubt that the estimated large revenue will be more than realised.

By order of the board, W.M. HAWES, Chairman.

B.G. KINNEAR, Secretary.

London, 3rd January, 1873.

The following are the contracts entered into by the company:—

1.—An indenture made between Don Matias del Cacho of the one part, and the company of the other part, dated October 30th, 1871.

2.—A like indenture dated the 26th day of March, 1872.

3.—A contract between the company of the one part, and Messrs. Barnett and Gale of the other part, dated the 15th day

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151, SAND PITS, PARADE,  
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ALL DESCRIPTIONS  
OF

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**MINERS' RAMMERS, DRILLS, and**  
**COPPER SPINDLES,**  
FOR BLASTING PURPOSES,  
As required by the recent Act of Parliament.

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MANUFACTURERS OF  
LEATHER BANDS, HOSE PIPES, FIRE BUCKETS,  
HAND LEATHERS, BLUE BENDS, AND  
THE KENDAL ENGINE BENDS,  
And every description of LEATHER for ENGINEERING and  
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BOLTS, NUTS, SPIKES, MANUFACTURED IRON, &c., &c.

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ENGINEERS, SHIPBUILDERS, AND CONTRACTORS,  
BLOWING ENGINES, WINDING ENGINES,  
Bourne's Patent Spherical Governors, Bourne's Patent Feedwater Heaters,  
Bourne's Patent Gas Furnaces, Bourne's Patent Coal-dust Furnaces,  
PUMPING ENGINES, STEAM BOILERS,  
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**BARKER'S IMPROVED FUEL**  
(FROM COAL DUST).

SUITABLE FOR ALL PURPOSES FOR WHICH COAL IS USED.

This fuel, made from dust coal, gives in use results superior to the best coal; it is thoroughly water proof, stacks without liability to spontaneous combustion, loss, or deterioration on board ship, or in any climate, and in 30 per cent. less space than coal.

An immense saving is effected by its use on sea-going steamers, owing to its high evaporative power, requiring one-third less stowage room, and avoiding all risk of spontaneous combustion. It burns with little smoke, forming itself into coke; it is very durable, the combustion is perfect, and it will not fall or disintegrate in great heat before a blast or strong draught, nor does it produce clinker.

It will bear rough usage and handling with impunity.

As regards the manufacture, it is easily and cheaply made; the machinery made is simple, effective, and comparatively inexpensive.

No heavy pressure is required, or exposure to heat after moulding, to dry or coke (as is usual); and after mixing, the blocks could, if desired, be made up by hand labour; but for large production, self-acting machinery is recommended; and when moulded, the fuel is at once ready for use or transit.

Works are in operation in London, and can be viewed on application.

Intending licensees can send their coal and have it made up into fuel in their own presence, and have it returned to them for trial.

Samples on a large scale suitable for every purpose supplied for trial.

The proprietors of the patents are prepared to grant licenses, and would, if desired, undertake contracts to provide machinery, erect works, and put the same into satisfactory operation, on any required scale of manufacture.

Application to be addressed to the patentees—

Mr. DAVID BARKER, Oldbury House, Northfleet, London; or  
Mr. THOS. D. CLARE, 13, St. Mary's Row, Birmingham.

**BOHLKEN'S Improved PATENT EARTH BORERS.**



THE BEST TOOL FOR BORING HOLES  
in the GROUND, to any depth, supplied in  
large quantities to CONTRACTORS, RAILWAY COMPANIES,  
BUILDERS, DOCKYARDS, &c., in GERMANY, RUSSIA, AUSTRIA, and HUNGARY.  
All sizes, from 2 inches to 18 inches diameter, kept in stock by the Patentee,—

M. SELIG, JUN.,  
70 and 71, BISHOPS-GATE STREET WITHIN,  
LONDON, E.C.

**JOHN AND EDWIN WRIGHT,**  
PATENTEES.  
(ESTABLISHED 1770.)  
MANUFACTURERS OF EVERY DESCRIPTION OF  
IMPROVED

**PATENT FLAT AND ROUND WIRE ROPES**  
from the very best quality of charcoal iron and steel wire.

**PATENT FLAT AND ROUND HEMP ROPES,**  
SHIPS' RIGGING, SIGNAL AND FENCING STRAND, LIGHTNING CONDUCTORS, STEAM PLOUGH ROPES (made from Webster and Horsfall's patent steel wire), HEMP, FLAX, ENGINE YARN, COTTON WASTE, TARPAULIN, OIL SHEETS, BRATTICE CLOTHS, &c.

UNIVERSE WORKS, MILLWALL, POPLAR, LONDON.  
UNIVERSE WORKS, GARRISON STREET, BIRMINGHAM.  
CITY OFFICE, NO. 5, LEADENHALL STREET, LONDON, E.C.

WILTON'S MATHEMATICAL INSTRUMENT ESTABLISHMENT,  
REMOVED from St. Day to A. JEFFERY'S, CAMBORNE.

W. H. WILTON begs to thank his friends for their liberal support for so many years, and informs them that (having opened business at Valparaiso) he has now declined business in England in favour solely of Mr. A. JEFFERY, MATHEMATICAL INSTRUMENT MAKER, CAMBORNE, whom he considers (having been an assistant to his father for several years) is in every way capable of creditably maintaining the good name universally awarded to Wilton's instruments.

A. JEFFERY

Respectfully begs to inform Mine Managers, Surveyors, Engineers, &c., that having purchased Mr. Wilton's business, and the very valuable acquisitions and appliances belonging thereto, he has enlarged his Mathematical Instrument Manufactory, and is prepared to supply THEODOLITES, DIALS, POCKET DIALS, LEVELS, TRAVERSING and PLAIN PROTRACTORS, CASES OF DRAWING INSTRUMENTS, MEASURING CHAINS and TAPE, ASSAYERS' SCALES and WEIGHTS, ENGINE COUNTERS, and, in short, every description of Instruments used in SURVEYING, MEASURING, MAPPING, &c.

Repairing in all its branches promptly attended to.

## THE MINING JOURNAL.

### THE HOWARD SAFETY BOILER, HUNDREDS ARE NOW IN USE, AND THE DEMAND IS UNPRECEDENTED.

Some of its advantages:—

NOT LIABLE TO DANGEROUS EXPLOSIONS.  
HIGH-PRESSURE STEAM, WITH ECONOMY OF FUEL.  
PERFECT CIRCULATION, AND READY MEANS OF REMOVING SEDIMENT.  
SAVING OF COST AND TIME IN REPAIRS.  
PORTABILITY, AND, FOR EXPORT, GREAT SAVING IN FREIGHT.

Patentees and Manufacturers: J. and F. HOWARD, BRITANNIA IRONWORKS, BEDFORD. London Office: 4, CHEAPSIDE, three doors from St. Paul's. Manchester Office: 43, MARKET STREET.

### J. WOOD ASTON AND CO., STOURBRIDGE (WORKS AND OFFICES ADJOINING CRADLEY STATION), Manufacturers of

**CRANE, INCLINE, AND PIT CHAINS,**  
Also CHAIN CABLES, ANCHORS, and RIGGING CHAINS, IRON and STEEL SHOVELS, SPADES and  
FORKS, ANVILS, VICES, SCYTHES, HAY and CHAFF KNIVES, PICKS, HAMMERS, NAILS,  
RAILWAY and MINING TOOLS, FRYING PANS, BOWLS, LADLES, &c., &c.  
Crab Winches, Pulley and Snatch Blocks, Screw and Lifting Jacks, Ship Knees, Forgings, and Use Iron of all descriptions.  
STOURBRIDGE FIRE BRICKS AND CLAY.

### BOLTS AND NUTS. BOLTS AND NUTS

MADE BY PATENT MACHINERY.

Suitable for Engineers, Millwrights, Coach and Wagon Builders, Colliery, and other Purposes.

AN EXTENSIVE ASSORTMENT OF OVER 200 TONS ALWAYS IN STOCK.

From which orders can be promptly executed. Every description of Bolts and Nuts made to order.

### BAR IRON. BAR IRON

OVER 1000 TONS OF BARS, PLATES, SHEETS, ANGLES, HOOPS, SQUARES, ROUNDS, AND FLATS.

All of First-class Quality.

### RAILWAY, COLLIERY, AND TRAM RAILS, TO ANY SECTION

A large Stock of Anvils, Vices, Tue Irons, Smiths' Bellows, Files, Rasps, Picks, Spades and Shovels, Sledge and Hand Hammers, Best Swedish Horse Nails, Back Bands, Plough Traces, Beat Spring, Cast, Double Shear, and Blister Steel.

**STANSFIELD & SONS, Iron Merchants, Bolt and Nut Manufacturer,**  
ALFRED STREET, BOAR LANE, LEEDS.

### THE "CHAMPION SAW DUST" MINING POWDER.

SAFE in Storage and Transport.  
SMOKELESS, made without Sulphur.

NO DANGER IN USE.  
NOT SPOILT BY DAMP.

THREE times stronger than the best black Blasting Powder when fired by a fuse.

TEN times stronger than the best black Blasting Powder when exploded by detonation.

All enquiries, &c., to be sent to the—

**SECRETARY of the SAWDUST POWDER COMPANY (LIMITED)**  
Temporary Offices,—36, CAMPBELL ROAD, BOW, MIDDLESEX.

### THOMAS WARDEN, LIONEL STREET, BIRMINGHAM, IRON AND STEEL MERCHANT,

Manufacturer of Every Description of Railway, Colliery, and Contractors' Plant.  
A LARGE STOCK OF SECOND HAND RAILS AND PLANT ALWAYS ON HAND.



### THE RAILWAY SPRING COMPANY, MILLSANDS, SHEFFIELD.

Having purchased from the Trustee of the late Firm of W. Charles and Co. the extensive works, with the valuable and improved machinery, are prepared to execute orders for every description of

#### RAILWAY SPRINGS.

### THOMAS TURTON AND SONS,

MANUFACTURERS OF

CAST STEEL for PUNCHES, TAPS, and DIES,

TURNING TOOLS, CHISELS, &c.

CAST STEEL PISTON RODS, CRANK PINS, CON-

NECTING RODS, STRAIGHT and CRANK

AXLES, SHAFTS and

FORGINGS of EVERY DESCRIPTION.

DOUBLE SHEAR STEEL

BLISTER STEEL

SPRING STEEL

GERMAN STEEL

Locomotive Engine, Railway Carriage and Wagon

Springs and Buffers.

SHEAF WORKS AND SPRING WORKS, SHEFFIELD.

LONDON WAREHOUSE, 35, QUEEN STREET, CANNON STREET, CITY, E.C.

Where the largest stock of steel, files, tools, &c., may be selected from.



### STRONG WIREFORK.

STRONG WIREFORK, the cross wires equally bent; also STAMP GRATES, both of iron and copper, and punched copper plate DITTO TUBBED. All the above promptly supplied at

W. ESCOTT'S MINING MATERIAL DEPOT,  
TAVISTOCK, DEVON.



By a special method of preparation, this leather is made solid, perfectly

texture, and impermeable to water; it has, therefore, all the qualification for pump buckets, and is the most durable material of which they can be made.

I. AND T. HEPBURN AND SONS,  
TANNERS AND CURRIERS, LEATHER MILLBAND AND HOSE  
MANUFACTURERS,

LONG LANE, SOUTHWARK, LONDON

PRISE MEDALS, 1851, 1855, 1862, for

MILL BANDS, HOSE, AND LEATHER FOR MACHINERY PUR-

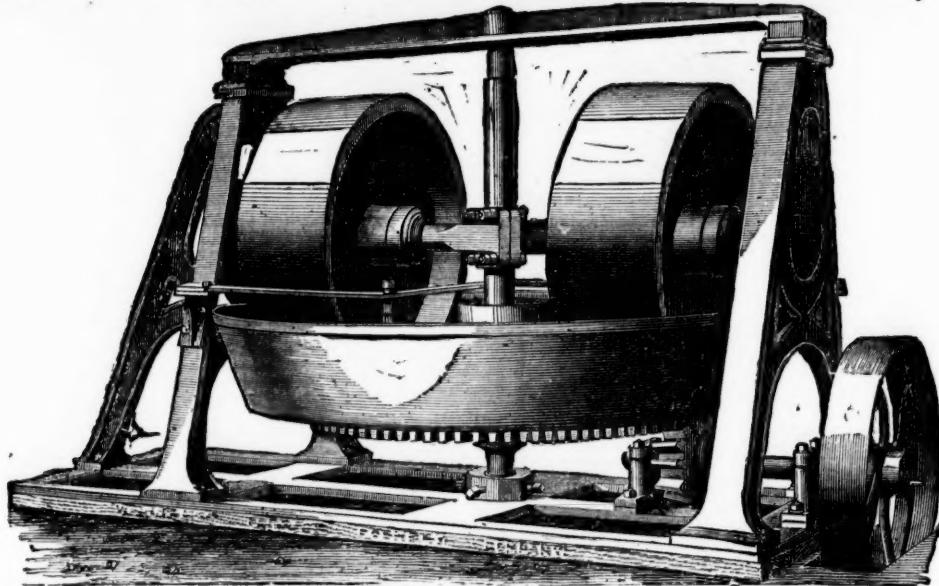
SPECIAL PAMPHLET ON NERVOUS DEBIL-

Read a Guide to the Cure of Nervousness; on the Special Treatment of Mental, and Physical Debility, Lowness of Spirits, Dimness of Vision, &c. Illustrated with cases. Gives rules for cure by the New Method. Dr. SMITH will, for the benefit of country patients, on receiving a description of their case, send a letter of advice GRATIS. Pamphlet free by post in an envelope of two stamps.—Dr. SMITH, 8, Burton Crescent, London, W.C.

Letters Patent for New Inventions.  
—HASLTINE, LAKE, and CO., obtain Home, Foreign, and Colonial Patents on favourable terms. Instruction and charges on application.

No. 8, SOUTHAMPTON BUILDINGS, LONDON; 23, CHANGE ALLEY, SHEFFIELD; 79, GEORGE STREET, EDINBURGH; and 247, BROADWAY, NEW YORK.

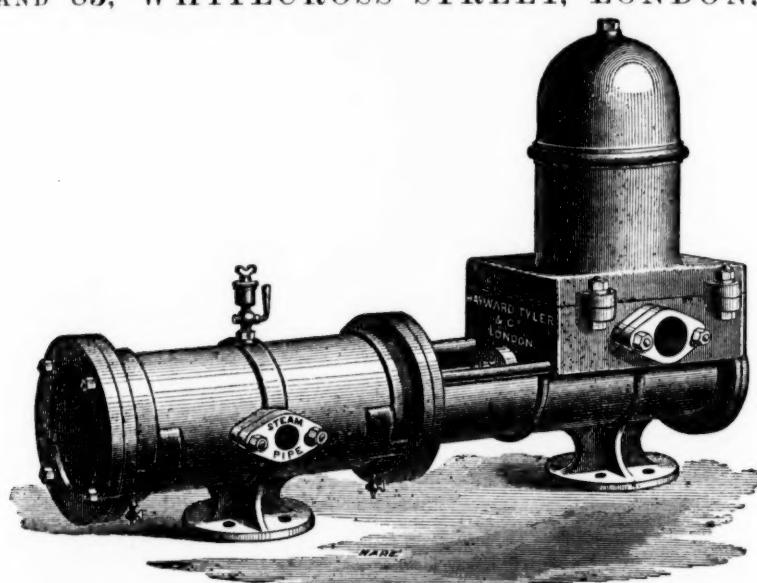
**BARROWS & STEWART,**  
ENGINEERS,  
MANUFACTURE  
**PORTABLE STEAM ENGINES,**  
WITH GEAR FOR WINDING, PUMPING, AND ORE CRUSHING,  
**BUILDERS' AND CONTRACTORS' PLANT, &c.**



WORKS: BANBURY.

CATALOGUES FREE BY POST.

THE PATENT "UNIVERSAL" STEAM PUMP,  
SOLE MAKERS,  
**HAYWARD TYLER AND CO.,**  
84 AND 85, WHITECROSS STREET, LONDON, E.C.



TESTIMONIALS.

GENTLEMEN.—I have much pleasure in informing you that your Steam Pump proved itself to be one of the most useful machines for raising water that I have ever seen. It was driven night and day for nearly three months without a single hitch. The construction of the pump is so simple that any person can be taught to open it, and replace or clear the valves. I have seen no engine at all to be compared with it for mines, coal pits, or small water-works.

I am, Gentleman, faithfully yours, (Signed) P. P. MARSHALL, C.E., Surveyor.

Messrs. HAYWARD TYLER and Co., London.

To MESSRS. HAYWARD TYLER and Co., 84, Upper Whitecross-street, London.

GENTLEMEN.—In answer to your enquiry, I beg to state that the two "Universal" Pumps supplied to us (through your agent, Mr. T. A. Ashton) are doing our work exceedingly well; we think they are the best in the market, and shall be glad if you will send us another 9-in. cylinder 6-in. pump, one week from this date.

Yours truly, (Signed) ASTON MAIN COAL COMPANY.

Extract of a Letter from JOHN SIMPSON, Esq. to Hayward Tyler and Co.'s Agent.

Rhos Llantrisant Colliery, Caerphilly, near Cardiff, March 4, 1872.

I should like to have the water-piston and clacks the same as in our present pump, as they work exceedingly well, and I do not think it is possible to improve upon the present pump, except by lining the cylinder with brasses ordered.

(Signed) JOHN SIMPSON.

**ROBEY AND COMPANY, LIMITED,**  
ENGINEERS, LINCOLN.

PATENT PORTABLE

**HAULING AND WINDING ENGINE**  
WITH  
**PATENT DRUM WINDLASSES,**  
FOR MINING PURPOSES.

This Engine is specially commended to Mining Engineers and others, as by its adoption—

Haulage along inclined drifts is easily and cheaply effected;

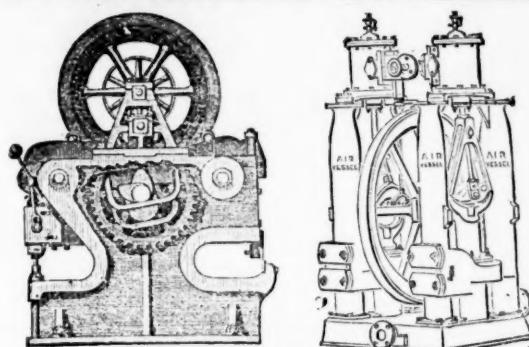
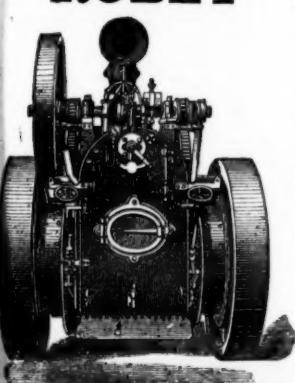
The expense of sinking new shafts is greatly reduced, neither foundations nor engine-house being required;

It is available not only for winding, but for pumping, sawing, &c.—a great desideratum at a large colliery;

It can be very quickly removed (being self-propelling), and fixed in any desired position.

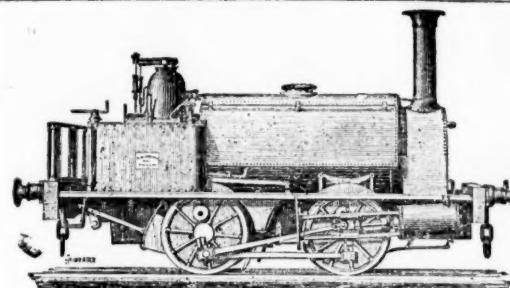
Prices and full particulars on application as above, and also references to view the engine in successful work near Derby, Carnarvon, Haverfordwest, Darlington, Durham, Penzance, and other places.

THESE ENGINES WORK WITH MARVELLOUS ECONOMY IN FUEL.



JOHN CAMERON,

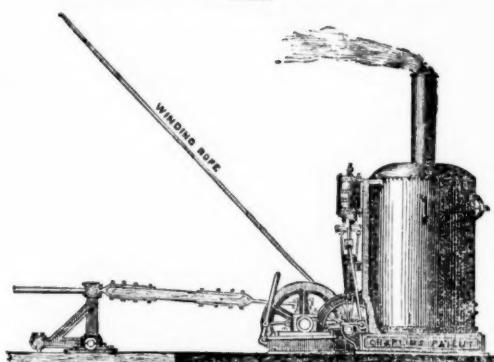
MAKER OF  
STEAM PUMPS, PORTABLE ENGINES, PLATE BENDING ROLLERS,  
BAR AND ANGLE IRON SHEARS, PUNCHING AND SHEARING  
MACHINES, PATENTEE OF THE DOUBLE CAM LEVER  
PUNCHING MACHINE, BAR SHEARS, AND RAIL  
PUNCHING MACHINES,  
EGERTON STREET IRON WORKS,  
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TANK LOCOMOTIVES,

FOR SALE OR HIRE.  
HENRY HUGHES AND CO.,  
LOUGHBOROUGH.

Prize Medal—International Exhibition, 1862.



CHAPLIN'S PATENT PORTABLE  
STEAM ENGINES, &c.,  
FOR PUMPING AND WINDING.

These engines are SPECIALLY ADAPTED for PITS,  
QUARRIES, &c. They are EXCEEDINGLY SIMPLE  
in ARRANGEMENT and STRONG. NO  
FOUNDATION of CHIMNEY STALK being NECESSARY, they can be ERECTED or REMOVED  
with VERY LITTLE TROUBLE or EXPENSE, and are WELL ADAPTED for HOME or FOREIGN USE.  
Sizes, from 2 to 25-horse power.

STEAM CRANES, STEAM WINCHES, CONTRACTORS' LOCOMOTIVES, HOISTING ENGINES,  
PUMPING AND WINDING  
GEARING, &c.

ALEXANDER CHAPLIN AND CO.,  
CRANSTONHILL ENGINE WORKS, GLASGOW.  
Agents in London for the SALE of our Manufactures:  
WIMSHURST & CO.

CAPTAIN TREGAY'S

IMPROVED  
STAMP COFFER,  
PATENT

FOR STAMPING GOLD QUARTZ, TIN, AND OTHER ORES.  
The grating is extended, discharge doubly increased, and power economised.

May be inspected in full work, on application to Captain TREGAY, Redruth, Cornwall, who is PREPARED to TREAT for GRANTING LICENSES for its use, or to SUPPLY the MACHINES.

J. AND F. POOL,  
WIRE WEAVERS,

MINE SIEVE AND STAMPS' GRATE MANUFACTURERS,  
COPPER BOTTOM PERFORATORS,  
WORKS AT

COPPERHOUSE, HAYLE, CORNWALL.

THE PATENT SELF-ACTING MINERAL DRESSING  
MACHINE COMPANY (LIMITED).

T. CURRIE GREGORY, MINING ENGINEER.  
OFFICES, -62, ST. VINCENT STREET, GLASGOW.

This company grant licenses, under their patents, for the use, singly or in combination, of the most approved machinery for dressing ores, comprising Stamps, Jiggers, Side-blown Percussion Tables, Classifiers, and Buddles.

The whole in combination are in successful operation at Rhosyddol Mines, Machynlleth, the Bog Waste, Shropshire, Darren and Gertrude Mines, Cardiganshire.

The Jiggers are largely used at the Van, Caldebeck Fells Mines, and at many mines, with unqualified success.

Self-acting Floors are in course of construction at various mines in England and Scotland, regarding which MR. GREGORY will be pleased to give information, answer all enquiries, and give orders for inspection.

MR. GEORGE GREEN, of Aberystwith, the company's mechanical engineer, is prepared to give designs and estimates, or contract for the supply of machinery, and for the laying out of floors.

He is doing a large business in the supply of Dressing Machinery for the treatment of Gold and Silver Ores in Foreign Parts, and all classes of ores at home.

He has devoted himself to the perfecting of Self-acting Dressing Machinery, and has, by his inventions, greatly conduced to the success of the system.

T. CURRIE GREGORY, Secretary.

Now ready, a new and enlarged edition of  
**HIBBERT'S NEW THEORY and PRACTICE of MEDICINE,**  
Vol. I. being a treatise on the Nature, Cause, Cure, and Prevention of  
Disease in Human Beings; Vol. II. on Animals. In paper cover, Is.; bound in  
cloth, gold lettered, 2s. each.  
Published and sold by JOHN HEYWOOD, Manchester; and SIMPKIN, MARSHALL,  
and CO., London.

**HIBBERT'S PATENT ANTISEPTIC,** for stamping out Small  
Pox, Cholera, Fever, and all Fermentive Inflammatory Diseases. May be  
obtained through any Chemist, in bottles, price Is. 1½d., and upwards.  
W. HIBBERT, Cheadle, Manchester.

## THE MINING SHARE LIST.

## BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Clos. Pr.	Total divs.	Per share.	Last paid
1500 Alderley Edge, c, Cheshire*	10 0 0	-	11 1 8	0 5 0	Oct. 1872		
10000 Belowd Beacon, t, Roche*(300 Bsh.)	10 0	2	1 1/2	0 2 0	0 1 6	Jan. 1873	
5500 Blaen Caefan, s-d, Cardigan*(£4 sh.)	3 5 0	-	0 10 9	-	-		
18000 Boscastle Downs, t, c, St. Just*	3 0 0	3 1/2	3 1/2	0 5 6	0 2 0	Oct. 1872	
20000 Braffordack, t, c, St. Just	91 5 0	-	135 140	619 15 0	5 0 0	Aug. 1872	
500 Bronfloyd, s-d, Cardigan†	100 0 0	75	65 75	110 0 0	2 0 0	Jan. 1872	
4000 Brookwood, c, Buckfastleigh	1 16 0	-	2 4 8	0 7 0	Oct. 1872		
858 Cargoll, s-d, Newlyn	18 15 7	-	7 1/2 8	19 5 0	2 10 0	Oct. 1872	
6400 Cashwell, t, Cumberland*	2 10 0	-	1 4 0	0 4 0	Aug. 1872		
8000 Castle-an-Dinas, t, St. Columb	2 0 0	2 1/2	0 6 0	0 2 0	July 1872		
1000 Carn Brea, c, Illogan†	55 0 0	155	160 170	301 0 0	4 0 0	Dec. 1872	
2450 Cook's Kitchen, c, Illogan†	19 14 9	28	27 29	11 9 6	0 15 0	Oct. 1872	
10240 Devon Gt. Consols, c, Tavistock†	0 2 0	7 1/2	7 7 1/2	118 10 0	0 12 0	May 1872	
658 Ding Dong, t, Gulval	49 14 6	-	7 10 0	0 15 0	Aug. 1870		
4296 Dolcoath, c, Camborne	10 14 10	67 1/2	70 75	100 6 8	0 10 0	Dec. 1872	
10000 East Balleswidden, t, Sancered*	1 0 0	-	1 1/2 1/2	0 10 0	0 5 0	Nov. 1872	
6144 East Caradon, t, St. Cleer	2 14 6	4 1/2	4 1/2 4 1/2	14 19 0	0 2 0	Oct. 1872	
300 East Darren, t, Cardiganshire	32 0 0	-	20 8 0	0 1 0	Nov. 1872		
6400 East Pool, t, c, Illogan	0 9 9	14	14 18	13 3 9	0 2 8	Nov. 1872	
2800 Foxdale, t, Isle of Man†	25 0 0	-	8 15 0	0 10 0	Sept. 1872		
5000 Frank Mills, t, Christow	3 18 6	-	4 8	0 8 0	Aug. 1870		
3950 Gawton, c, Tavistock	3 10 6	3	3 1/2 3 1/2	0 13 0	0 5 0	May 1872	
40000 Glasgow Cara, c [30,000 £1 p., 10,000 15s. p.]	4 0 0	15	14 1/2 15 1/2	0 10 0	0 10 0	Feb. 1872	
15000 Great Laxey, t, Isle of Man	59 0 0	6 1/2	6 6 1/2	15 1 0	0 6 0	Mar. 1872	
6400 Green Hurlh, t, Cumberland*	0 6 0	6	0 12 0	0 3 0	Dec. 1872		
10240 Gunnislake (Clitters), t, c	4 19 0	-	0 2 0	0 1 0	Nov. 1870		
1024 Herdofit, t, near Liskeard†	8 10 0	17	17 1/2 17 1/2	62 5 0	0 15 0	Oct. 1872	
6000 Hindston Down, c, Calstock †	6 4 0	8 1/2	8 1/2 8 1/2	4 3 0	0 5 0	Dec. 1872	
1200 Killaloe, t, Tipperary	1 0 0	-	1 1/2	0 8 5 1/2	0 6 0	Aug. 1872	
4000 Lisburne, t, Cardiganshire	18 15 0	-	55 10 0	1 0 1	0 1 0	Nov. 1872	
2784 Lovell, t, Wendron	3 0 0	11	9 10	0 8 0	0 4 0	Nov. 1872	
9000 Marke Valley, c, Cardon*	4 10 6	3 1/2	7 13 0	0 2 8	July 1872		
9000 Minera Mining Co., t, Wrexham*	5 0 0	-	61 15 8	0 12 0	Nov. 1872		
20000 Mining Co. of Ireland, d, c, I*	7 0 0	-	9 1/2 9 1/2	0 8 0	0 3 8	July 1872	
6400 New Pembroke, t, Par Station	5 0 0	-	0 17 0	0 4 0	July 1872		
12000 North Hendre, t, Wales	2 10 0	-	0 5 0	0 2 6	June 1872		
2000 North Levant, t, c, St. Just	10 12 0	16	15 16	4 13 0	0 12 0	Sept. 1872	
5634 Pedn-an-drea, t, Redruth	8 2 0	10	0 5 0	0 5 0	Nov. 1871		
5000 Penhalia, t, St. Agnes	3 0 0	3 1/2	3 1/2 3 1/2	2 12 6	0 4 0	July 1872	
6084 Phoenix, t, c, Linkinhorne	4 3 4	-	39 19 10	0 4 0	Nov. 1872		
1722 Polberro, t, St. Agnes	15 0 0	-	1 12 6	0 5 0	Mar. 1872		
2000 Police, t, c, Gwennap	10 0 0	-	1 10 0	0 10 0	Oct. 1870		
1120 Providence, t, Uny Lelant	16 6 7	20	18 20	104 12 6	0 10 0	Sept. 1872	
18000 Prince Patrick, s-d, Holywell	1 0 0	3	0 1 0	0 1 0	Dec. 1872		
12000 Roman Gravels, t, Salop*	7 10 0	19	18 1/2 19	12 1 0	0 6 0	Jan. 1872	
5868 Rosewall Hill and Ransom, t	4 0 0	2	1 1/2 2	0 14 6	0 1 6	June 1872	
9000 Shelton, t, St. Austell	1 0 0	-	0 1 0	0 1 0	Feb. 1872		
6000 Slimford Dressing, t, Calstock	1 0 0	-	1	0 1 0	0 1 1	Sept. 1872	
512 South Caradon, c, St. Cleer	1 5 0	190	170 180	689 10 0	4 0 0	Dec. 1872	
8000 South Carn Brea, t, Illogan	11 11 6	4 1/2	4 1/2 4 1/2	0 10 0	0 2 6	July 1872	
6000 South Darren, t, Cardigan*	3 6 6	-	1 1 6	0 1 6	Aug. 1872		
242 Speare Moor, t, St. Just	36 15 9	-	17 5 0	0 10 0	June 1870		
940 St. Ives Consols, t, St. Ives	10 15 0	11	11 11 1/2	0 10 0	0 10 0	May 1869	
8771 St. Just Amalgamated, t*	2 10 0	-	0 9 0	0 4 0	Oct. 1871		
12000 Tankerville, t, Salop*	6 0 0	-	15	14 15	3 2 0	Aug. 1872	
25000 Terras, t, St. Austell*	1 0 0	24 1/2	24 1/2 3	0 3 0	0 1 0	Oct. 1872	
6000 Tincroft, t, Pool, Illogan	9 0 0	57 1/2	58 60	42 13 6	0 15 0	Dec. 1872	
40000 Trunsel Consols, t, Helston	5 15 0	14	13 14	9 11 6	0 10 0	Nov. 1872	
512 South Caradon, c, St. Cleer	1 5 0	190	170 180	689 10 0	4 0 0	Dec. 1872	
8000 South Carn Brea, t, Illogan	11 11 6	4 1/2	4 1/2 4 1/2	0 10 0	0 2 6	July 1872	
6000 South Darren, t, Cardigan*	3 6 6	-	1 1 6	0 1 6	Aug. 1872		
242 Speare Moor, t, St. Just	36 15 9	-	17 5 0	0 10 0	June 1870		
940 St. Ives Consols, t, St. Ives	10 15 0	11	11 11 1/2	0 10 0	0 10 0	May 1869	
8771 St. Just Amalgamated, t*	2 10 0	-	0 9 0	0 4 0	Oct. 1871		
12000 Tankerville, t, Salop*	6 0 0	-	15	14 15	3 2 0	Aug. 1872	
25000 Terras, t, St. Austell*	1 0 0	24 1/2	24 1/2 3	0 3 0	0 1 0	Oct. 1872	
6000 Tincroft, t, Pool, Illogan	9 0 0	57 1/2	58 60	42 13 6	0 15 0	Dec. 1872	
40000 Trunsel Consols, t, Helston	5 15 0	14	13 14	9 11 6	0 10 0	Nov. 1872	
512 South Caradon, c, St. Cleer	1 5 0	190	170 180	689 10 0	4 0 0	Dec. 1872	
8000 South Carn Brea, t, Illogan	11 11 6	4 1/2	4 1/2 4 1/2	0 10 0	0 2 6	July 1872	
6000 South Darren, t, Cardigan*	3 6 6	-	1 1 6	0 1 6	Aug. 1872		
242 Speare Moor, t, St. Just	36 15 9	-	17 5 0	0 10 0	June 1870		
940 St. Ives Consols, t, St. Ives	10 15 0	11	11 11 1/2	0 10 0	0 10 0	May 1869	
8771 St. Just Amalgamated, t*	2 10 0	-	0 9 0	0 4 0	Oct. 1871		
12000 Tankerville, t, Salop*	6 0 0	-	15	14 15	3 2 0	Aug. 1872	
25000 Terras, t, St. Austell*	1 0 0	24 1/2	24 1/2 3	0 3 0	0 1 0	Oct. 1872	
6000 Tincroft, t, Pool, Illogan	9 0 0	57 1/2	58 60	42 13 6	0 15 0	Dec. 1872	
40000 Trunsel Consols, t, Helston	5 15 0	14	13 14	9 11 6	0 10 0	Nov. 1872	
512 South Caradon, c, St. Cleer	1 5 0	190	170 180	689 10 0	4 0 0	Dec. 1872	
8000 South Carn Brea, t, Illogan	11 11 6	4 1/2	4 1/2 4 1/2	0 10 0	0 2 6	July 1872	
6000 South Darren, t, Cardigan*	3 6 6	-	1 1 6	0 1 6	Aug. 1872		
242 Speare Moor, t, St. Just	36 15 9	-	17 5 0	0 10 0	June 1870		
940 St. Ives Consols, t, St. Ives	10 15 0	11	11 11 1/2	0 10 0	0 10 0	May 1869	
8771 St. Just Amalgamated, t*	2 10 0	-	0 9 0	0 4 0	Oct. 1871		
12000 Tankerville, t, Salop*	6 0 0	-	15	14 15	3 2 0	Aug. 1872	
25000 Terras, t, St. Austell*	1 0 0	24 1/2	24 1/2 3	0 3 0	0 1 0	Oct. 1872	
6000 Tincroft, t, Pool, Illogan	9 0 0	57 1/2	58 60	42 13 6	0 15 0	Dec. 1872	
40000 Trunsel Consols,							